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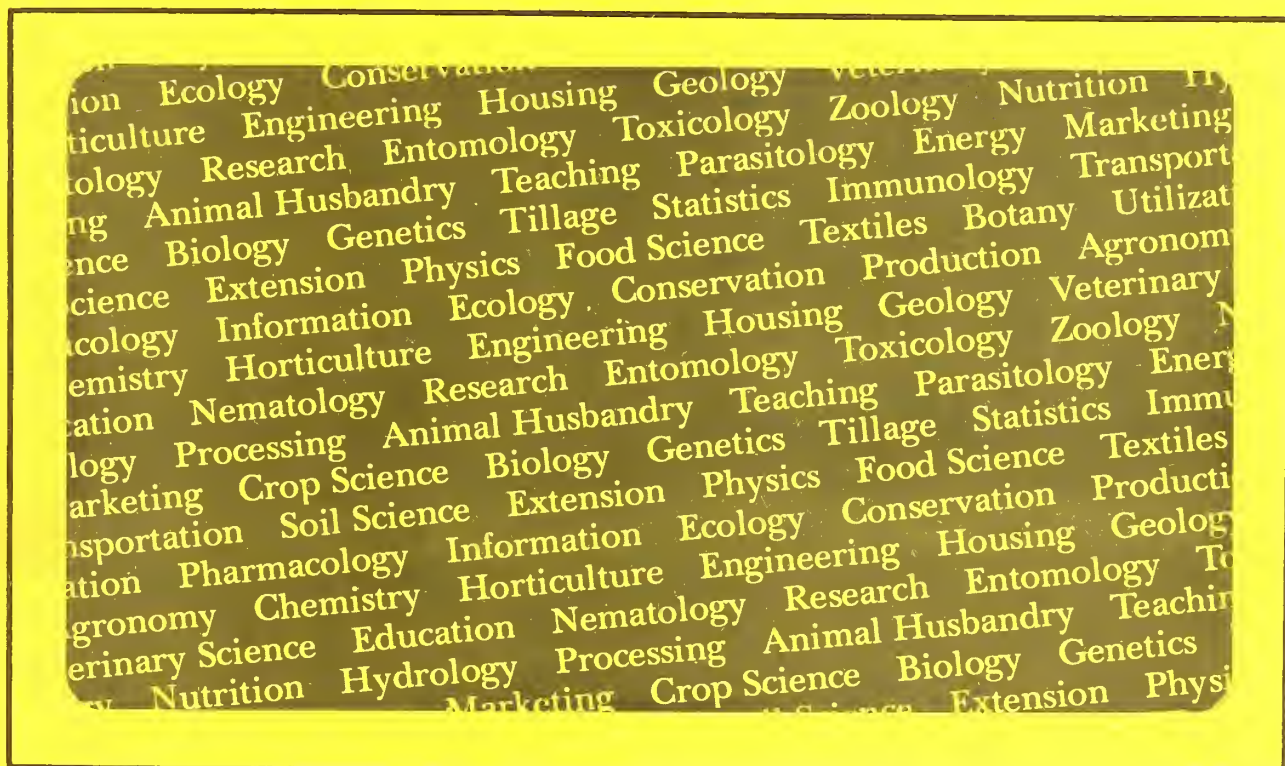
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Chemicals Tested as Attractants for the Caribbean Fruit Fly, 1972-78



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Chemicals Tested as Attractants for the Caribbean Fruit Fly, 1972-78 - 2/4

By A. K. Burditt, Jr., and T. P. McGovern . . .
Science and Education Administration

U.S. Department of Agriculture
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This paper contains the results of research only. Mention of potential insect attractants does not constitute a recommendation for use by the U.S. Department of Agriculture, nor does it imply that they are registered under the Federal Insecticide, Fungicide, and Rodenticide Act as amended.

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Chemicals Tested as Attractants for the Caribbean Fruit Fly, 1972-78

By A. K. Burditt, Jr.,¹ and T. P. McGovern²

ABSTRACT

One thousand three hundred twenty chemical compounds were evaluated for their effectiveness as attractants for the Caribbean fruit fly, *Anastrepha suspensa* (Loew), in an outdoor cage olfactometer. Of these compounds, 97 were class 2, attracting more than five times as many flies as the ethyl alcohol control. Complete test results are given. Index terms: *Anastrepha suspensa* (Loew), fruit flies, insect attractants.

INTRODUCTION

In 1965, the Caribbean fruit fly, *Anastrepha suspensa* (Loew), was found in Dade County, Fla. The fly spread rapidly throughout the State, north to Daytona Beach and Tampa. Survey and detection were accomplished by using McPhail traps baited with standard pelletized cottonseed hydrolysate-borax lure. Lopez and his coworkers (1971) found that a hydrolyzed torula yeast lure was five times as effective as the standard, but neither material is as effective as some of the specific synthetic chemical attractants are to other fruit fly species, such as trimedlure to *Ceratitis capitata* (Wied.) (Beroza et al. 1961).

In 1969, a search was initiated by Lopez and his associates at the Subtropical Horticulture Research Unit, Miami, for chemical attractants to the Caribbean fruit fly, and over 730 compounds were evaluated in single unreplicated tests by 1972. Two compounds, 5-(2-bromo-1-

propoxypropyl)-1,3-benzodioxole and 5-[2-bromo-1-(3-methylbutoxy)propyl]-1,3-benzodioxole, were slightly attractive to the Caribbean fruit fly (unpublished data).³ The present authors continued the search for chemical attractants from 1972 until 1978. This report includes the results from tests of 1,320 compounds, including a few of those previously tested by Lopez.

METHODS.

The attractancy of a compound to the Caribbean fruit fly was determined by a modification of the method of Christenson et al. (1963). An outdoor cage-type olfactometer (Gow 1954), 3.7 by 3.7 by 2.5 m, was stocked with 25,000 to 50,000 puparia. Emerged flies were confronted with 15 small invaginated glass traps, similar to the McPhail trap, containing test attractants. Ten traps were hung from the outer rim of a horizontally mounted wheel 1.2 m in diameter, and five traps were hung from the inner rim (fig. 1). The wheel, driven by an electric gearmotor, took 135 seconds to make a complete revolution.

The traps were modified from 500-ml round-bottom flasks. One end of a 4-cm length of No. 2

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³Items 219 and 212, respectively, in table 1.



FIGURE 1.—Mechanisms for evaluating the attractancy of chemical compounds. Only the revolving glass traps were used in the present study. The hexagonal apparatus in the lower part of the picture was used by Lopez and his associates in previous unpublished screening work. The experimental compound was applied to a cotton wick, and the wick attached to the center of a target outlined on mimeograph paper. Attractancy was measured by counting the number of flies on the target after 15 minutes in the olfactometer.

Johnson and Johnson cotton dental roll was wrapped in parafilm and inserted in a 5-mm-diameter hole in the center of a neoprene stopper. The chemical (0.1 ml) was applied to the exposed end of a wick, using a 100-microliter disposable pipet (fig. 2). Fifty milliliters of distilled water containing one-half drop of a wetting agent was placed in each trap to prevent escape of the flies. Traps containing experimental chemicals were hung from the wheel along with a control trap containing 0.1 ml of ethyl alcohol (EtOH) on the wick. Beginning on July 12, 1973, a trap containing 0.1 ml of 3-phenylpropyl cyclohexanecarboxylate, one of the first chemicals to show moderate attractancy and easily synthesized, was included in each test as a standard.⁴ Each chemical was tested on at least three separate occasions.

The number of flies in each trap was counted after 1 h and again after 3 h. Data were entered in

⁴Item 519 in table 1.



FIGURE 2.—Invaginated glass traps. A prepared trap is on the left. On the right, an experimental chemical is applied to a cotton dental roll.

our Wang 2200 computer. The computer was programmed to sort the chemicals, calculate the mean number of flies attracted to each chemical, and calculate the mean of the attractancy ratios (the ratio of the mean number of flies caught in traps containing the experimental compound to the mean number of flies caught in the control traps). Compounds were rated according to the following classifications:

Class	Mean attractancy ratio (test chemical/control)
0	Less than 1.0
1	1.0 to 4.9
2	5.0 to 49.9
3	More than 50.0

RESULTS

The results are given in table 1, where the test compounds are listed according to the nomenclatural and alphabetical rules of Chemical Abstracts Service (1977). Each chemical is assigned an item number and identified by AI3 number, a number assigned by the Science and Education Administration to chemicals used in entomological investigations. The two numbers are cross-referenced in the index. Ninety-seven compounds were assigned to class 2. None of the compounds was rated as class 3, although a few chemicals achieved this rating in individual

(Continued on page 40.)

Table 1.--Effectiveness of chemicals tested as attractants for the Caribbean fruit fly

Item	AI3 No. (AI3-)	Test chemical	Mean No. flies attracted by--			Ratio (test/EtOH)	Class
			Test chemical	EtOH	AI3-19816		
1	36126	Acetaldehyde, [(3,7-dimethyl-6-octenyl)oxy]-	19.2	6.2	10.2	3.21	1
2	36127	Acetaldehyde, (2-phenylethoxy)-	17.6	9.0	13.0	1.83	1
3	2828	Acetamide, N,N-bis(1-methylethyl)-	19.0	4.6	8.3	7.74	2
4	2184	Acetamide, N,N-dibutyl-	12.0	15.0	29.0	.66	0
5	2182	Acetamide, N,N-diethyl-	3.6	5.3	17.0	1.13	1
6	15276	Acetamide, N,N-dimethyl-	8.0	9.0	12.0	1.12	1
7	15236	Acetamide, N,N-dipropyl-	21.5	7.5	16.0	3.33	1
8	3878	Acetic acid, 2-phenylethyl ester	8.3	8.6	55.6	.88	0
9	31053	Acetic acid, bromo-, [1,1'-bicyclohexyl]-2-yl ester	.6	.6	5.0	.66	0
10	20961	Acetic acid, bromo-, 2-(2-butoxyethoxy)ethyl ester	38.5	13.5	14.0	3.26	1
11	20960	Acetic acid, bromo-, 2-butoxyethyl ester	7.6	4.6	6.3	1.43	1
12	21157	Acetic acid, bromo-, 2-chloro-1-methylethyl ester	5.3	6.6	25.6	1.55	1
13	21144	Acetic acid, bromo-, 2-(2-chlorophenoxy)-1-methylethyl ester	19.3	9.6	17.3	1.99	1
14	21142	Acetic acid, bromo-, 2-(4-chlorophenoxy)-1-methylethyl ester	3.3	6.6	10.6	.63	0
15	21135	Acetic acid, bromo-, 2-(4-chlorophenyl)ethyl ester	5.6	1.6	2.6	1.91	1
16	21158	Acetic acid, bromo-, 3-chloropropyl ester	1.0	7.0	12.0	.14	0
17	13005	Acetic acid, bromo-, cyclohexyl ester	4.0	4.6	10.6	1.02	1
18	30395	Acetic acid, bromo-, decyl ester	4.6	3.0	11.0	1.81	1
19	21394	Acetic acid, bromo-, 2,3-dibromopropyl ester	13.6	13.3	19.6	1.15	1
20	21145	Acetic acid, bromo-, 2-(2,4-dichlorophenoxy)-1-methylethyl ester	10.0	3.3	25.6	5.06	2
21	30914	Acetic acid, bromo-, 2,2-dimethylpentyl ester	3.6	12.0	19.3	.32	0
22	21585	Acetic acid, bromo-, (2,4-dimethylphenyl)methyl ester	3.3	3.6	3.3	.83	0
23	30204	Acetic acid, bromo-, (3,4-dimethylphenyl)methyl ester	12.0	6.0	12.6	2.27	1
24	21132	Acetic acid, bromo-, 2-ethylbutyl ester	4.3	8.3	8.6	.43	0
25	21134	Acetic acid, bromo-, 4-ethyl-(3-ethylpentyl)octyl ester	4.0	7.0	7.3	1.54	1
26	21133	Acetic acid, bromo-, 4-ethyl-1-methyloctyl ester	7.0	3.6	7.6	3.26	1
27	18921	Acetic acid, bromo-, 1-ethylpentyl ester	.6	1.6	9.0	.40	0
28	18918	Acetic acid, bromo-, 1-ethylpropyl ester	.3	1.0	24.0	.33	0
29	21139	Acetic acid, bromo-, heptyl ester	5.0	3.0	10.0	1.46	1
30	30739	Acetic acid, bromo-, hexadecyl ester	1.6	2.6	23.0	.69	0
31	20959	Acetic acid, bromo-, hexyl ester	6.6	13.3	19.6	.47	0
32	21926	Acetic acid, bromo-, 3-methoxybutyl ester	4.5	4.5	4.0	1.02	1
33	21143	Acetic acid, bromo-, 1-methyl-2-[4-(1-methylpropyl)phenoxy]ethyl ester	21.6	7.6	14.3	3.58	1
34	18919	Acetic acid, bromo-, 2-methylpentyl ester	1.6	2.0	7.6	1.13	1
35	30201	Acetic acid, bromo-, (3-methylphenyl)methyl ester	5.3	5.3	4.6	1.14	1

Table 1.--Effectiveness of chemicals tested as attractants for the Caribbean fruit fly--Continued

Item	AI3 No. (AI3-)	Test chemical	Mean No. flies attracted by--			Ratio (test/EtOH)	Class
			Test chemical	EtOH	AI3-19816		
36	30590	Acetic acid, bromo-, nonyl ester	5.0	2.3	2.6	2.06	1
37	18690	Acetic acid, bromo-, 2-phenylethyl ester	40.6	8.0	58.3	4.10	1
38	18917	Acetic acid, bromo-, phenylmethyl ester	5.6	2.3	8.3	2.36	1
39	18537	Acetic acid, bromo-, 3-phenylpropyl ester	54.0	6.6	43.0	8.04	2
40	30211	Acetic acid, bromo-, 1,2,3-propanetriyl ester	6.3	3.3	28.3	3.23	1
41	21156	Acetic acid, bromo-, tetradecyl ester	1.0	1.0	3.3	1.00	1
42	30901	Acetic acid, bromo-, undecyl ester	3.6	3.3	24.6	1.88	1
43	30732	Acetic acid, chloro-, decyl ester	3.3	8.6	15.0	.57	0
44	21396	Acetic acid, chloro-, 2,3-dibromopropyl ester	7.6	10.0	8.3	.83	0
45	18524	Acetic acid, chloro-, 1,3-dimethylbutyl ester	2.6	4.6	4.6	1.01	1
46	31387	Acetic acid, chloro-, [2,2-dimethyl-3-(2-methyl-1-propenyl)cyclopropyl]methyl ester	3.0	2.6	3.3	1.93	1
47	30197	Acetic acid, chloro-, (3,4-dimethylphenyl)methyl ester	12.3	4.0	33.3	3.61	1
48	2151	Acetic acid, chloro-, 1,2-ethanediyl ester	15.3	4.0	3.6	3.56	1
49	18525	Acetic acid, chloro-, 1-ethylpentyl ester	4.0	1.0	24.0	3.33	1
50	21528	Acetic acid, chloro-, heptyl ester	3.0	4.0	11.0	1.36	1
51	30699	Acetic acid, chloro-, hexyl ester	1.3	2.6	2.3	.63	0
52	21925	Acetic acid, chloro-, 3-methoxybutyl ester	3.3	1.3	8.3	1.33	1
53	18414	Acetic acid, chloro-, 2-(1-methylethyl)cyclohexyl ester	3.0	3.3	25.3	.88	0
54	18411	Acetic acid, chloro-, 4-(1-methylethyl)cyclohexyl ester	3.0	3.0	3.6	1.40	1
55	18522	Acetic acid, chloro-, 1-methylheptyl ester	2.6	3.6	4.0	1.33	1
56	22399	Acetic acid, chloro-, 1-methyl-2-phenoxyethyl ester	9.0	.5	8.5	9.00	2
57	30589	Acetic acid, chloro-, nonyl ester	2.0	5.3	4.6	.46	0
58	30591	Acetic acid, chloro-, octyl ester	4.6	6.3	12.6	.81	0
59	31897	Acetic acid, chloro-, 4-(3-oxobutyl)phenyl ester	23.5	14.3	---	1.27	1
60	7345	Acetic acid, chloro-, 2-phenoxyethyl ester	43.3	7.6	17.3	5.94	2
61	18405	Acetic acid, chloro-, 2-phenylethyl ester	30.0	24.6	204.0	.82	0
62	18407	Acetic acid, chloro-, 3-phenylpropyl ester	148.3	23.6	209.3	6.01	2
63	30328	Acetic acid, chloro-, 1,2,3-propanetriyl ester	16.3	8.6	13.3	1.14	1
64	21189	Acetic acid, chloro-, (tetrahydro-2H-pyran-2-yl)methyl ester	5.3	5.6	5.3	1.02	1
65	30900	Acetic acid, chloro-, undecyl ester	1.6	4.6	13.3	.11	0
66	32186	Acetic acid, (4-chlorophenoxy)-, 1,1-dimethyl-2-oxopropyl ester	18.0	12.6	---	1.28	1
67	18539	Acetic acid, cyano-, 3-phenylpropyl ester	15.3	8.0	38.6	1.55	1

Table 1.--Effectiveness of chemicals tested as attractants for the Caribbean fruit fly--Continued

Item	AI3 No. (AI3-) .	Test chemical	Mean No. flies attracted by--			Ratio (test/EtOH)	Class
			Test chemical	EtOH	AI3-19816		
68	4923	Acetic acid, cyanocyclopentylidene-, methyl ester	20.6	27.3	138.3	1.72	1
69	21401	Acetic acid, dichloro-, butyl ester	1.0	10.0	8.3	.15	0
70	21407	Acetic acid, dichloro-, cyclohexyl ester	2.6	7.0	7.3	.79	0
71	32137	Acetic acid, dichloro-, 4-(3- oxobutyl)phenyl ester	4.3	5.3	---	.82	0
72	21410	Acetic acid, dichloro-, 2-phenylethyl ester	37.7	10.2	45.2	5.08	2
73	21402	Acetic acid, dichloro-, phenylmethyl ester	7.0	3.6	4.0	2.01	1
74	30432	Acetic acid, iodo-, 2-bromoethyl ester	8.0	3.3	13.0	2.01	1
75	30426	Acetic acid, iodo-, hexyl ester	2.3	1.6	2.0	1.08	1
76	30427	Acetic acid, iodo-, 2-phenoxyethyl ester	71.6	10.1	23.0	13.90	2
77	20958	Acetic acid, iodo-, 2-phenylethyl ester	21.3	8.8	137.6	2.50	1
78	30417	Acetic acid, iodo-, phenylmethyl ester	4.0	1.0	1.3	4.00	1
79	21399	Acetic acid, phenoxy-, 2,3- dibromopropyl ester	7.3	6.3	7.3	3.55	1
80	22345	Acetic acid, phenoxy-, 2-methylpropyl ester	9.3	6.3	18.6	1.18	1
81	22348	Acetic acid, phenoxy-, 2-phenylethyl ester	16.5	11.5	21.0	1.22	1
82	18691	Acetic acid, trichloro-, 2-phenylethyl ester	96.6	34.6	154.0	1.46	1
83	18538	Acetic acid, trichloro-, 3-phenylpropyl ester	212.6	33.3	158.3	4.75	1
84	13150	Acetonitrile, oxophenyl-	49.0	81.3	193.0	2.06	1
85	4980	Acetonitrile, [2-(2- propenyl)cyclohexylidene]-	2.3	3.6	2.3	.63	0
86	37026	1H-Azepine, 1-(bicyclo[2.2.1]hept-5-ene- 2-carbonyl)hexahydro-	1.3	9.3	11.6	.10	0
87	70209	1H-Azepine, 1-(butylsulfonyl)hexahydro-	11.0	6.6	10.3	3.10	1
88	35766	1H-Azepine, 1-(3-cyclohexen-1- ylcarbonyl)hexahydro-	13.0	10.6	164.6	1.23	1
89	36157	1H-Azepine, hexahydro-1-(2-methyl-1-oxo- 2-butenyl)-, (E)-	2.6	1.3	8.3	1.50	1
90	36171	1H-Azepine, hexahydro-1-(3-methyl-1-oxo- 2-butenyl)-	1.3	2.0	8.6	.66	0
91	35469	1H-Azepine, hexahydro-1-(1-oxobutyl)-	4.0	5.0	14.0	.85	0
92	33514	1H-Azepine, hexahydro-1-(1-oxodecyl)-	3.3	8.0	12.3	.78	0
93	32840	1H-Azepine, hexahydro-1-(1-oxododecyl)-	12.6	9.6	19.3	2.58	1
94	33513	1H-Azepine, hexahydro-1-(1-oxoheptyl)-	8.3	8.0	25.6	2.49	1
95	32851	1H-Azepine, hexahydro-1- (1-oxohexadecyl)-	7.0	2.6	14.3	2.30	1
96	32849	1H-Azepine, hexahydro-1-(1-oxohexyl)-	11.3	9.0	20.0	.62	0
97	32839	1H-Azepine, hexahydro-1-(1-oxononyl)-	3.0	5.0	10.6	.32	0
98	32842	1H-Azepine, hexahydro-(1-oxo-9- octadecenyl)-, (Z)-	2.6	3.0	4.0	1.33	1
99	37391	1H-Azepine, hexahydro(1-oxooctadecyl)-	2.6	4.3	4.3	.60	0
100	32838	1H-Azepine, hexahydro-1-(1-oxooctyl)-	9.0	6.7	11.5	1.92	1
101	35463	1H-Azepine, hexahydro-1-(oxopentyl)-	1.3	1.6	7.0	.66	0
102	36634	1H-Azepine, hexahydro-1-(1-oxopropyl)-	15.5	11.7	19.0	4.60	1
103	32841	1H-Azepine, hexahydro-1- (1-oxotetradecyl)-	3.3	2.6	8.3	1.61	1
104	33515	1H-Azepine, hexahydro-1-(1-oxoundecyl)-	24.0	9.3	14.0	2.82	1

Table 1.--Effectiveness of chemicals tested as attractants for the Caribbean fruit fly--Continued

Item	AI3 No. (AI3-)	Test chemical	Mean No. flies attracted by--			Ratio (test/EtOH)	Class
			Test chemical	EtOH	AI3-19816		
105	24367	Benzaldehyde, 2,4-dihydroxy-	65.3	21.3	93.6	5.19	2
106	37199	Benzaldehyde, 4-(1,1-dimethylethyl)-	3.3	8.0	10.3	.43	0
107	5684	Benzaldehyde, 4-ethoxy-	18.6	13.0	36.3	1.66	1
108	36503	Benzene, 1-(4-bromobutoxy)-4-ethyl-	19.6	23.3	372.3	.87	0
109	2510	Benzene, 1-(2-bromoethoxy)-4-chloro-	91.3	20.3	241.6	4.14	1
110	36501	Benzene, 1-(3-bromopropoxy)-3-chloro-	53.0	19.6	300.3	2.07	1
111	36502	Benzene, 1-(3-bromopropoxy)-4-chloro-	34.3	14.0	116.0	1.91	1
112	36499	Benzene, 1-(3-bromopropoxy)-3,5- dichloro-	27.0	19.6	300.3	1.40	1
113	36498	Benzene, 4-(3-bromopropoxy)-1,2- dichloro-	21.3	23.3	372.3	.80	0
114	36500	Benzene, 4-(3-bromopropoxy)-1,2- dimethyl-	22.0	23.3	372.3	.89	0
115	53	Benzene, 1,2-dichloro-	7.0	8.8	10.6	1.29	1
116	30338	Benzene, 1-(diethoxymethyl)-2-[(2- methyl-2-propyl)oxy]-	63.5	71.0	209.0	.88	0
117	36125	Benzene, (dimethoxymethyl)-	9.6	6.3	7.0	2.12	1
118	23451	Benzene, 1,3-dimethoxy-2-(2- propenyloxy)-	8.5	8.2	14.7	.74	0
119	24140	Benzene, 1-ethoxy-2-methoxy-4- (1-propenyl)-	2.3	3.6	2.6	.77	0
120	36707	Benzene, 1-(hexyloxy)-2-methoxy- 4-(1-propenyl)-	18.6	5.6	15.0	1.59	1
121	7621	Benzene, 1-methoxy-4-methyl-	3.0	3.3	6.0	1.30	1
122	380	Benzene, 1-methoxy-4-(1-propenyl)-	15.0	9.0	13.3	3.67	1
123	20815	Benzene, 1,2,3-trimethoxy-5-(2- propenyl)-	10.6	10.3	15.6	1.01	1
124	22223	Benzeneacetic acid, 2-bromoethyl ester	40.8	13.4	21.8	3.56	1
125	22218	Benzeneacetic acid, 2-chloroethyl ester	9.3	5.6	28.0	3.20	1
126	30321	Benzeneacetic acid, 2-(2-chlorophenoxy)- 1-methylethyl ester	6.0	3.3	3.3	1.85	1
127	30325	Benzeneacetic acid, 2-(4-chlorophenoxy)- 1-methylethyl ester	2.3	6.0	9.3	.75	0
128	22227	Benzeneacetic acid, (4-chlorophenyl)methyl ester	10.0	5.0	24.0	2.00	1
129	21400	Benzeneacetic acid, 2,3-dibromopropyl ester	7.0	5.3	6.0	1.52	1
130	654	Benzeneacetic acid, ethyl ester	4.6	5.3	109.3	.81	0
131	19339	Benzeneacetic acid, heptyl ester	111.0	25.0	103.5	3.93	1
132	22361	Benzeneacetic acid, 2-methoxy-1- methylethyl ester	68.0	54.0	158.0	1.25	1
133	36547	Benzeneacetic acid, (4-methoxyphenyl)methyl ester	2.6	1.6	4.3	1.61	1
134	1971	Benzeneacetic acid, methyl ester	9.3	5.3	109.3	1.45	1
135	36555	Benzeneacetic acid, 3-methylbutyl ester	10.3	8.0	18.6	1.39	1
136	20106	Benzeneacetic acid, 2-phenylethyl ester	31.0	22.0	274.0	2.05	1
137	36589	Benzeneacetic acid, 3-phenyl-2-propenyl ester	24.6	7.6	8.6	3.90	1
138	20105	Benzeneacetic acid, 3-phenylpropyl ester	28.5	4.0	73.5	8.79	2
139	22225	Benzeneacetic acid, 2-propenyl ester	41.3	16.3	32.6	2.32	1
140	20038	Benzeneacetic acid, 2,4-dichloro-alpha- hydroxy-, ethyl ester	54.0	17.3	63.6	2.90	1

Table 1.--Effectiveness of chemicals tested as attractants for the Caribbean fruit fly--Continued

Item	AI3 No. (AI3-)	Test chemical	Mean No. flies attracted by--			Ratio (test/EtOH)	Class
			Test chemical	EtOH	AI3-19816		
141	31104	Benzeneacetic acid, 4-methoxy-, 2-bromoethyl ester	1.6	2.6	3.0	0.70	0
142	31102	Benzeneacetic acid, 4-methoxy-, 2-chloroethyl ester	18.6	8.6	30.0	2.58	1
143	7025	Benzeneacetonitrile, alpha-methyl-	328.0	202.0	534.6	2.08	1
144	17436	Benzeneacetonitrile, alpha-phenyl-	15.7	29.5	109.7	1.01	1
145	20640	Benzenebutanol, alpha-ethyl-alpha- methyl-	118.3	12.3	212.1	9.67	2
146	744	Benzeneethanol	18.6	13.6	41.3	1.80	1
147	18542	Benzeneethanol, formate	20.0	8.3	161.3	2.37	1
148	18544	Benzeneethanol, propanoate	5.3	8.0	58.3	.84	0
149	2719	Benzeneethanol, 4-chloro-	340.6	255.3	533.3	1.17	1
150	20630	Benzeneethanol, 4-chloro-alpha,alpha- dimethyl-	69.0	35.3	146.0	3.13	1
151	5672	Benzeneethanol, 4-chloro-alpha-(1- methylethyl)-	20.0	5.0	24.0	4.00	1
152	2949	Benzeneethanol, alpha,alpha-dimethyl-	67.6	54.0	216.0	1.28	1
153	36430	Benzeneethanol, beta,beta-dimethyl-	94.0	81.0	124.0	2.26	1
154	20604	Benzeneethanol, alpha-ethyl-alpha- methyl-	19.5	7.7	306.5	4.11	1
155	36431	Benzeneethanol, 4-fluoro-	779.6	199.0	555.6	9.74	2
156	31843	Benzeneethanol, 4-hydroxy-alpha-methyl-	38.5	11.5	11.0	2.80	1
157	5522	Benzeneethanol, 4-methoxy-	49.3	54.0	216.0	1.03	1
158	5531	Benzeneethanol, alpha,alpha-methyl-	69.5	18.5	110.0	5.61	2
159	28634	Benzeneethanol, beta-methyl-	27.7	15.8	58.2	4.07	1
160	36271	Benzeneethanol, 2-nitro-	8.3	9.3	9.0	.88	0
161	25102 -X	Benzenemethanaminium, 4-chloro-N,N- dimethyl-N-[2-[2-[4-(1,1,3,3- tetramethylbutyl)phenoxy]ethoxy]ethyl]-, chloride	19.3	13.6	90.3	1.43	1
162	31458	Benzenemethanethiol, 2,4-dichloro-	12.2	16.8	8.2	.74	0
163	36514	Benzenemethanol, alpha-butyl-	26.6	17.0	246.6	1.46	1
164	18076	Benzenemethanol, 2-chloro-, acetate	1.0	1.0	8.0	.83	0
165	2463	Benzenemethanol, 4-chloro-alpha-methyl-	35.3	41.0	206.3	1.14	1
166	20519	Benzenemethanol, 4-chloro-alpha-phenyl-, acetate	4.0	2.6	4.0	1.36	1
167	20608	Benzenemethanol, 4-chloro-alpha-propyl-, acetate	6.6	5.3	6.3	1.45	1
168	4536	Benzenemethanol, 4-chloro-alpha- (trichloromethyl)-	10.6	2.6	23.3	4.76	1
169	20558	Benzenemethanol, 2,4-dichloro-, acetate	12.0	4.3	9.6	3.75	1
170	7789	Benzenemethanol, 3,4-dichloro-, acetate	2.6	.6	9.3	1.66	1
171	36517	Benzenemethanol, alpha,alpha-diethyl-	28.0	23.3	372.3	1.11	1
172	20495	Benzenemethanol, 2,3-dimethoxy-alpha-2- propenyl-, acetate	8.0	1.3	62.6	4.00	1
173	36459	Benzenemethanol, alpha,4-dimethyl-	41.6	24.3	61.3	2.57	1
174	19819	Benzenemethanol, alpha-ethyl-	105.0	17.7	65.2	8.71	2
175	24781	Benzenemethanol, alpha-ethyl-alpha- methyl-	10.3	14.0	158.3	.96	0
176	3990	Benzenemethanol, 2-hydroxy-	21.3	21.3	93.6	1.63	1
177	6113	Benzenemethanol, 4-methoxy-, propanoate	24.3	6.3	17.6	3.87	1
178	2936	Benzenemethanol, alpha-methyl-	58.3	77.0	266.3	1.48	1
179	4248	Benzenemethanol, alpha-(1-methylethyl)-	392.3	70.8	215.9	8.65	2

Table 1.--Effectiveness of chemicals tested as attractants for the Caribbean fruit fly--Continued

Item	AI3 No. (AI3-)	Test chemical	Mean No. flies attracted by--			Ratio (test/EtOH)	Class
			Test chemical	EtOH	AI3-19816		
180	20492	Benzenemethanol, 4-(1-methylethyl)- alpha-2-propenyl-	13.6	3.3	42.0	3.22	1
181	20489	Benzenemethanol, 4-(1-methylethyl)- alpha-2-propenyl-, acetate	11.6	8.0	79.0	3.28	1
182	36513	Benzenemethanol, alpha-methyl-alpha-2- propenyl-	54.6	17.0	246.6	2.60	1
183	36510	Benzenemethanol, alpha-methyl-alpha- propyl-	15.3	14.0	158.3	1.18	1
184	20570	Benzenemethanol, 2-methyl-alpha-propyl-	3.3	1.3	62.6	1.83	1
185	15125	Benzenemethanol, alpha-(2-propenyl)-	231.0	20.3	241.6	10.29	2
186	4237	Benzenemethanol, alpha-propyl-	28.0	3.3	7.6	6.91	2
187	11231	Benzenepentanol	73.8	10.7	28.1	11.40	2
188	34135	Benzenepropanoic acid, butyl ester	11.0	9.3	60.6	.68	0
189	11591	Benzenepropanoic acid, ethyl ester	10.6	9.3	15.3	1.91	1
190	2453	Benzenepropanoic acid, methyl ester	2.6	7.3	130.6	.45	0
191	2331	Benzenepropanoic acid, propyl ester	9.0	25.3	201.3	.41	0
192	36428	Benzenepropanoic acid, 4-(acetyloxy)-3- methoxy-, methyl ester	11.3	6.6	12.3	1.24	1
193	36385	Benzenepropanoic acid, 3,4- bis(acetyloxy)-, methyl ester	20.6	18.6	27.0	1.01	1
194	5833	Benzenepropanoic acid, 4-chloro-beta- oxo-, ethyl ester	79.5	6.5	14.1	7.84	2
195	36609	Benzenepropanoic acid, 4-(formyloxy)-3- methoxy-, methyl ester	13.0	21.6	31.6	.59	0
196	36083	Benzenepropanoic acid, 3-hydroxy-, methyl ester	31.3	21.6	31.6	1.79	1
197	31900	Benzenepropanoic acid, 4-hydroxy-, methyl ester	11.3	11.0	---	1.21	1
198	1353	Benzenepropanoic acid, beta-oxo-, ethyl ester	215.2	18.7	42.0	12.96	2
199	2067	Benzenepropanol	22.3	7.6	47.0	2.37	1
200	32079	Benzenepropanol, 4-(acetyloxy)-alpha- methyl-	5.6	5.3	---	1.12	1
201	32020	Benzenepropanol, 4-(acetyloxy)-alpha- methyl-, acetate	4.6	5.3	---	.87	0
202	24792	Benzenepropanol, alpha,beta-dimethyl-	184.6	9.3	368.0	15.75	2
203	28141	Benzenepropanol, beta,beta-dimethyl-	30.2	7.4	227.0	4.51	1
204	21916	Benzenepropanol, alpha-ethyl-	29.9	11.4	144.3	2.25	1
205	32116	Benzenepropanol, 4-hydroxy-alpha- methyl-, 1-formate	6.3	5.3	---	1.13	1
206	5903	Benzenepropanol, 4-methoxy-alpha-methyl-	10.6	3.3	---	4.60	1
207	25261	Benzenesulfonic acid, 4-hydroxy-3- methyl	10.6	7.0	11.6	1.58	1
208	30999	1,3-Benzodioxole, 5-bromo-6-(1-(1- bromoethyl)-3-methyl-2,4,7,10- tetraoxaundecyl)-	4.6	4.6	7.0	1.57	1
209	31035	1,3-Benzodioxole, 5-(2-bromo-1- butoxypropyl)-	4.6	7.6	---	.58	0
210	31001	1,3-Benzodioxole, 5-(2-bromo-1- ethoxypropyl)-	12.8	4.2	---	6.46	2
211	34324	1,3-Benzodioxole, 5-[2-bromo-1-(2- methylbutoxy)propyl]-	30.0	11.0	---	4.70	1
212	31036	1,3-Benzodioxole, 5-[2-bromo-1-(3- methylbutoxy)propyl]-	6.6	7.6	---	.91	0

Table 1.--Effectiveness of chemicals tested as attractants for the Caribbean fruit fly--Continued

Item	AI3 No. (AI3-)	Test chemical	Mean No. flies attracted by--			Ratio (test/EtOH)	Class
			Test chemical	EtOH	AI3-19816		
213	31037	1,3-Benzodioxole, 5-[2-bromo-1-(1-methylethoxy)propyl]-	31.3	11.6	---	3.59	1
214	30746	1,3-Benzodioxole, 5-bromo-6-[2-methyl-3-[1-(2-methylpropoxy)ethoxy]propyl]-	8.3	3.3	25.6	2.95	1
215	34312	1,3-Benzodioxole, 5-[2-bromo-1-(1-methylpropoxy)propyl]-	11.3	11.0	---	2.52	1
216	34310	1,3-Benzodioxole, 5-[2-bromo-1-(2-methylpropoxy)propyl]-	23.6	11.0	---	3.28	1
217	34311	1,3-Benzodioxole, 5-[2-bromo-1-(pentyloxy)propyl]-	23.6	11.0	---	2.77	1
218	31038	1,3-Benzodioxole, 5-[2-bromo-1-(2-propenyloxy)propyl]-	15.3	14.0	---	1.56	1
219	31033	1,3-Benzodioxole, 5-(2-bromo-1-propoxypropyl)-	27.0	11.6	---	4.41	1
220	20997	1,3-Benzodioxole, 5-(2-bromopropyl)-	7.3	3.3	6.6	2.15	1
221	31367	1,3-Benzodioxole, 5-chloro-6-[[[2,2-dimethyl-3-(2-methyl-1-propenyl)cyclopropyl]oxy]methyl]-	24.6	18.6	8.2	1.39	1
222	2068	1,3-Benzodioxole, 5-(1-propenyl)-	1.3	5.3	---	.45	0
223	514	1,3-Benzodioxole, 5-(2-propenyl)-	9.6	5.3	---	5.88	2
224	30388	1,3-Benzodioxole-5-acetic acid, methyl ester	42.3	16.6	212.0	2.04	1
225	5703	1,3-Benzodioxole-5-methanol, acetate	11.3	9.0	8.3	1.46	1
226	20463	1,3-Benzodioxole-5-methanol, alpha-(1,1-dimethylethyl)-, acetate	24.0	3.3	42.0	5.72	2
227	20464	1,3-Benzodioxole-5-methanol, alpha-(1,1-dimethylethyl)-, formate	34.2	4.0	73.5	9.46	2
228	20339	1,3-Benzodioxole-5-methanol, alpha-(1-methylethyl)-, acetate	5.0	2.6	20.6	1.66	1
229	20395	1,3-Benzodioxole-5-methanol, alpha-(2-methyl-2-propenyl)-, acetate	27.0	8.0	79.0	8.28	2
230	20000	1,3-Benzodioxole-5-methanol, alpha-2-propenyl-	18.1	7.8	---	2.37	1
231	5004	1,3-Benzodioxole-5-methanol, alpha-2-propenyl-, acetate	16.8	9.1	7.5	2.27	1
232	20083	1,3-Benzodioxole-5-methanol, alpha-2-propenyl-, propanoate	17.6	7.8	---	2.33	1
233	20909	1,3-Benzodioxole-5-methanol, 6-(2-propenyl)-, acetate	19.5	37.5	101.0	.59	0
234	20089	1,3-Benzodioxole-5-methanol, alpha-propyl-, acetate	14.2	11.0	13.2	1.53	1
235	20090	1,3-Benzodioxole-5-methanol, alpha-propyl-, propanoate	3.3	2.6	20.6	1.66	1
236	3806	Benzoic acid, phenyl ester	11.8	10.0	21.8	1.50	1
237	36784	Benzoic acid, 4-(acetyloxy)-3-methoxy-, methyl ester	22.3	18.6	27.0	3.37	1
238	3469	Benzoic acid, 2-amino-, cyclohexyl ester	3.0	2.6	4.3	1.60	1
239	36131	Benzoic acid, 2-amino-, decyl ester	12.0	17.0	27.5	.60	0
240	36130	Benzoic acid, 2-amino-, 3,7-dimethyl-6-octenyl ester	20.0	17.0	27.5	1.09	1
241	70501	Benzoic acid, 2-amino-, 3-hexenyl ester, (Z)-	8.0	4.6	4.3	1.81	1
242	1022	Benzoic acid, 2-amino-, methyl ester	23.3	8.0	11.0	4.04	1

Table 1.--Effectiveness of chemicals tested as attractants for the Caribbean fruit fly--Continued

Item	AI3 No. (AI3-)	Test chemical	Mean No. flies attracted by--			Ratio (test/EtOH)	Class
			Test chemical	EtOH	AI3-19816		
243	3470	Benzoic acid, 2-amino-, 3-methylbutyl ester	7.2	4.0	5.7	2.89	1
244	36600	Benzoic acid, 2-amino-, phenyl ester	4.3	4.3	2.6	2.76	1
245	36132	Benzoic acid, 2-amino-, 2-phenylethyl ester	7.3	6.3	17.0	.73	0
246	36005	Benzoic acid, 2-amino-, 2-propenyl ester	13.6	11.6	18.3	3.47	1
247	31392	Benzoic acid, 2-chloro-, [2,2-dimethyl-3-(2-methyl-1-propenyl)cyclopropyl]methyl ester	3.6	3.0	24.3	1.62	1
248	30920	Benzoic acid, 2-chloro-, 2,2-dimethylpentyl ester	8.0	8.6	17.3	1.56	1
249	31355	Benzoic acid, 2-chloro-, 2-propylheptyl ester	12.3	9.3	13.3	1.26	1
250	30931	Benzoic acid, 4-chloro-, 2,2-dimethylpentyl ester	7.3	3.6	7.0	2.26	1
251	30902	Benzoic acid, 4-chloro-, undecyl ester	7.6	9.6	17.3	.72	0
252	20682	Benzoic acid, 4-(1,1-dimethylethyl)-, ethyl ester	8.0	3.0	5.0	3.50	1
253	18942	Benzoic acid, 2-ethoxy-, 2-phenylethyl ester	178.3	33.0	117.3	2.30	1
254	18943	Benzoic acid, 2-ethoxy-, 3-phenylpropyl ester	328.0	23.0	274.0	14.82	2
255	20699	Benzoic acid, 3-ethoxy-, ethyl ester	54.0	16.5	119.5	3.60	1
256	20347	Benzoic acid, 4-ethoxy-, propyl ester	24.6	34.6	121.6	.86	0
257	4978	Benzoic acid, 2-hydroxy-, 2-propenyl ester	9.0	4.6	4.3	2.90	1
258	19595	Benzoic acid, 4-hydroxy-, 3-phenylpropyl ester	45.5	11.5	21.0	6.84	2
259	30603	Benzoic acid, 4-methoxy-, 2-bromoethyl ester	41.5	10.3	19.1	4.54	1
260	30602	Benzoic acid, 4-methoxy-, 2-chloroethyl ester	9.3	5.0	6.3	1.90	1
261	648	Benzoic acid, 4-methoxy-, ethyl ester	3.3	3.6	4.6	1.66	1
262	17155	Benzoic acid, 4-methoxy-, 2-phenylethyl ester	14.0	11.5	21.0	1.59	1
263	21985	Benzoic acid, 2-methyl-, 2-bromoethyl ester	8.7	10.7	21.0	1.02	1
264	31223	Benzoic acid, 2-methyl-, 2-phenylethyl ester	2.6	7.3	66.3	.62	0
265	31193	Benzoic acid, 2-methyl-, 2,4,5-trichlorophenyl ester	8.3	6.0	8.6	1.60	1
266	30136	Benzoic acid, 3-methyl-, 2-phenylethyl ester	1.0	9.3	158.3	.09	0
267	30135	Benzoic acid, 3-methyl-, 3-phenylpropyl ester	19.3	8.5	249.1	3.17	1
268	31119	Benzoic acid, 4-methyl-, 2-chloroethyl ester	39.6	9.3	11.3	7.25	2
269	31226	Benzoic acid, 4-methyl-, 2-phenylethyl ester	13.3	10.3	153.0	2.48	1
270	36705	Benzoic acid, 2-(methylanino)-, 2-methylpropyl ester	7.2	4.7	9.2	1.77	1
271	30159	Benzoic acid, 4-(1-methylethyl)-, 2-bromoethyl ester	13.0	6.6	10.6	2.55	1

Table 1.--Effectiveness of chemicals tested as attractants for the Caribbean fruit fly--Continued

Item	AI3 No. (AI3-)	Test chemical	Mean No. flies attracted by--			Ratio (test/EtOH)	Class
			Test chemical	EtOH	AI3-19816		
272	30192	Benzoic acid, 4-(1-methylethyl)-, 2-phenylethyl ester	17.0	11.5	21.0	1.25	1
273	30193	Benzoic acid, 4-(1-methylethyl)-, 3-phenylpropyl ester	58.6	7.0	172.0	6.76	2
274	30194	Benzoic acid, 4-(1-methylethyl)-, 2,2,2-trichloroethyl ester	2.3	2.3	5.6	1.00	1
275	7823	Benzoic acid, 2-propenyl ester	11.3	5.6	16.6	.70	0
276	1775	Bicyclo[2.2.1]heptane, 2,2-dimethyl-3-methylene-	4.0	5.0	12.0	1.08	1
277	36120	Bicyclo[2.2.1]heptan-2-ol, 1,7,7-trimethyl-, acetate, endo(-)-	2.5	2.5	.5	.62	0
278	36272	Bicyclo[3.1.1]heptane-2-methanol, 6,6-dimethyl-, exo-	15.3	6.6	17.3	1.39	1
279	24483	Bicyclo[3.1.1]heptan-3-one, 6,6-dimethyl-2-methylene-	.3	1.3	1.6	.16	0
280	5928	Bicyclo[2.2.1]hept-5-ene-2-carbonitrile	13.3	27.3	138.3	1.34	1
281	37032	Bicyclo[2.2.1]hept-5-ene-2-carboxamide, N,N-dibutyl-	4.3	6.0	3.0	.98	0
282	37030	Bicyclo[2.2.1]hept-5-ene-2-carboxamide, N,N-diethyl-	2.6	7.0	11.0	.31	0
283	37031	Bicyclo[2.2.1]hept-5-ene-2-carboxamide, N,N-dipropyl-	8.3	8.3	8.0	2.84	1
284	24594	Bicyclo[3.1.1]hept-2-ene, 2,6,6-trimethyl-	2.0	2.0	5.0	.33	0
285	25389	Bicyclo[4.1.0]hept-3-ene, 3,7,7-trimethyl-	2.6	4.0	1.6	.66	0
286	14379	Bicyclo[3.1.1]hept-2-ene-2-ethanol, 2,6-dimethyl-	1.3	1.6	2.0	.66	0
287	30463	[1,1'-Bicyclohexyl]-4-ol, formate	9.0	54.0	158.0	.16	0
288	20020	[1,1'-Biphenyl]-4-ol, 3-bromo-, propanoate	31.3	12.0	45.3	2.50	1
289	35705	Butanamide, N,N-bis(2-methylpropyl)-	23.0	14.6	22.0	2.66	1
290	18486	Butanamide, N,N-dibutyl-	6.6	11.3	25.0	.68	0
291	6147	Butanamide, N,N-diethyl-	12.0	14.3	20.0	.29	0
292	36713	Butanamide, N,N-dimethyl-	4.0	5.0	5.6	1.23	1
293	18493	Butanamide, N,N-dipropyl-	2.3	1.6	15.3	1.44	1
294	21920	Butane, 1[1-(2-chloroethoxy)ethoxy]-	2.3	3.0	11.3	1.05	1
295	16504	Butane, 1,1'-oxybis[4-chloro-	13.6	6.0	34.6	2.86	1
296	6297	Butanedioic acid	5.2	29.5	109.7	.26	0
297	1975	Butanedioic acid, bis(3-methylbutyl) ester	5.0	3.6	5.0	1.52	1
298	5513	Butanedioic acid, bis(1-methylethyl) ester	3.6	7.0	14.3	.67	0
299	5515	Butanedioic acid, bis(2-methylpropyl) ester	7.3	8.3	29.0	1.03	1
300	666	Butanedioic acid, dibutyl ester	3.6	7.6	13.6	.67	0
301	682	Butanedioic acid, diethyl ester	1.3	3.3	4.3	.30	0
302	2480	Butanedioic acid, dimethyl ester	4.0	10.3	11.6	.45	0
303	3426	Butanedioic acid, dipentyl ester	12.3	6.0	8.3	2.21	1
304	32639	Butanedioic acid, methyl 1-methylethyl ester	1.3	3.6	5.3	.36	0
305	11158	1,3-Butanediol, diacetate	10.0	9.6	24.0	1.00	1
306	18704	1,3-Butanediol, diformate	6.3	4.6	8.0	1.41	1
307	33664	1,3-Butanediol, dipropanoate	2.3	3.6	3.6	.72	0

Table 1.--Effectiveness of chemicals tested as attractants for the Caribbean fruit fly--Continued

Item	AI3 No. (AI3-)	Test chemical	Mean No. flies attracted by--			Ratio (test/EtOH)	Class
			Test chemical	EtOH	AI3-19816		
308	6322	1,4-Butanediol, diacetate	3.6	2.6	12.0	1.61	1
309	22074	1,4-Butanediol, diformate	18.6	13.0	25.0	1.25	1
310	6326	1,4-Butanediol, dipropionate	2.3	3.0	6.3	.61	0
311	33656	2,3-Butanediol, diformate	11.6	10.6	15.3	1.67	1
312	33665	2,3-Butanediol, dipropionate	7.6	5.3	13.3	1.38	1
313	11699	1,3-Butanedione, 2-butyl-1-phenyl-	20.8	7.0	.5	2.76	1
314	34294	Butanesulfonamide, N,N-dibutyl-	4.0	4.2	14.2	.73	0
315	34292	Butanesulfonamide, N,N-diethyl-	7.0	6.0	16.0	1.13	1
316	34293	Butanesulfonamide, N,N-dipropyl-	16.3	5.0	18.3	2.19	1
317	3884	Butanoic acid, [1,1'-bicyclohexyl]-2-yl ester	3.6	8.5	---	.54	0
318	6330	Butanoic acid, 1,4-butanediyl ester	6.0	4.6	8.3	1.72	1
319	8726	Butanoic acid, 2-butoxy-1-methyl- 2-oxoethyl ester	1.6	3.3	4.3	.50	0
320	30496	Butanoic acid, 1-(chloromethyl)-2- (2-propenyloxy)ethyl ester	5.3	7.6	13.6	.44	0
321	30419	Butanoic acid, 2-(2-chlorophenoxy)-1- methylethyl ester	4.0	4.6	8.6	.90	0
322	20520	Butanoic acid, (4-chlorophenyl)methyl ester	3.6	2.0	7.0	2.33	1
323	6059	Butanoic acid, cyclohexyl ester	2.2	8.2	11.7	.61	0
324	36084	Butanoic acid, 2-cyclohexylethyl ester	7.0	18.6	36.6	.45	0
325	30906	Butanoic acid, 2,3-dibromo-1,1-dimethyl- propyl ester	16.0	8.0	8.6	2.24	1
326	21398	Butanoic acid, 2,3-dibromopropyl ester	7.3	6.6	17.3	1.96	1
327	33674	Butanoic acid, 1,4-dimethyl-1,4- butanediyl ester	5.6	5.6	7.3	1.02	1
328	33205	Butanoic acid, 1,3-dimethyl-2-butenyl ester	3.7	1.5	11.2	2.58	1
329	33672	Butanoic acid, 1,2-dimethyl-1,2- ethanediyl ester	.6	3.6	5.0	.16	0
330	24200	Butanoic acid, 3,7-dimethyl-6-octenyl ester	7.0	12.6	12.6	2.87	1
331	33194	Butanoic acid, 1,1-dimethyl-2-oxopropyl ester	5.0	1.0	11.3	3.22	1
332	33192	Butanoic acid, 1,1-dimethyl-2-propenyl ester	6.0	2.6	6.6	3.86	1
333	33186	Butanoic acid, 1,1-dimethyl-2-propynyl ester	2.6	1.6	4.3	1.86	1
334	6318	Butanoic acid, 1,2-ethanediyl ester	2.0	3.3	4.3	.44	0
335	33200	Butanoic acid, 1-ethyl-2-butenyl ester	1.3	2.0	6.6	1.33	1
336	33204	Butanoic acid, 1-ethyl-2-methyl-2- propenyl ester	7.6	3.0	12.6	5.26	2
337	33188	Butanoic acid, 1-ethyl-2-propynyl ester	5.7	2.2	13.0	2.58	1
338	31453	Butanoic acid, 2-(ethylthio)ethyl ester	37.8	14.6	16.8	2.93	1
339	32960	Butanoic acid, 2,4-hexadienyl ester	177.1	44.0	122.1	3.13	1
340	6377	Butanoic acid, 1,6-hexanediyl ester	9.0	7.6	27.6	1.22	1
341	35967	Butanoic acid, 2-hexenyl ester, (E)-	2.0	5.3	3.6	.34	0
342	33202	Butanoic acid, 2-hexenyl ester, (Z)-	2.0	6.0	7.0	.52	0
343	6118	Butanoic acid, (4-methoxyphenyl)methyl ester	7.6	6.0	9.0	1.70	1
344	33207	Butanoic acid, 1-methyl-3-butenyl ester	6.3	8.3	10.3	.75	0
345	33195	Butanoic acid, 3-methylcyclohexyl ester	3.6	11.0	14.3	.86	0
346	33196	Butanoic acid, 4-methylcyclohexyl ester	7.0	5.6	9.6	2.29	1

Table 1.--Effectiveness of chemicals tested as attractants for the Caribbean fruit fly--Continued

Item	AI3 No. (AI3-)	Test chemical	Mean No. flies attracted by--			Ratio (test/EtOH)	Class
			Test chemical	EtOH	AI3-19816		
347	33670	Butanoic acid, 1-methyl-1,2-ethanediyl ester	2.6	3.0	7.0	1.03	1
348	33190	Butanoic acid, 1-(1-methylethyl)-2-propenyl ester	7.6	7.3	8.6	2.38	1
349	33193	Butanoic acid, 1-methyl-1-(2-methyl-propyl)-2-propynyl ester	7.6	3.6	12.6	2.51	1
350	36588	Butanoic acid, 2-methyl-5-oxo-1-cyclopenten-1-yl ester	8.3	6.0	9.0	1.54	1
351	33671	Butanoic acid, 1-methyl-1,3-propanediyl ester	7.3	13.0	15.3	.64	0
352	24204	Butanoic acid, octyl ester	1.3	2.0	3.3	.94	0
353	31835	Butanoic acid, 4-(3-oxobutyl)phenyl ester	82.3	19.3	14.3	4.27	1
354	6153	Butanoic acid, 1,5-pentanedyl ester	8.6	4.3	10.6	1.68	1
355	33187	Butanoic acid, 1-pentyl-2-propenyl ester	3.3	8.3	11.0	.28	0
356	20536	Butanoic acid, 1-phenylbutyl ester	4.3	3.0	36.6	1.47	1
357	2954	Butanoic acid, 2-phenylethyl ester	13.3	8.3	35.0	1.10	1
358	2461	Butanoic acid, 3-phenyl-2-propenyl ester	12.7	10.5	36.5	1.37	1
359	6152	Butanoic acid, 3-phenylpropyl ester	16.2	20.2	37.7	1.36	1
360	1859	Butanoic acid, 1,3-propanediyl ester	4.0	5.6	9.3	.59	0
361	36006	Butanoic acid, 2-propenyl ester	8.0	2.6	3.0	3.55	1
362	33208	Butanoic acid, 1-propyl-3-butenyl ester	8.5	5.2	11.7	3.43	1
363	33206	Butanoic acid, 1-propyl-2-propenyl ester	3.3	3.6	12.6	1.06	1
364	33203	Butanoic acid, 1-propyl-2-propynyl ester	5.3	12.6	12.6	1.88	1
365	22229	Butanoic acid, 2-propynyl ester	1.0	1.5	8.5	.66	0
366	33201	Butanoic acid, 1,1,2-trimethyl-3-butenyl ester	10.0	12.6	12.6	1.71	1
367	21970	Butanoic acid, 2-bromo-, 3-methoxybutyl ester	2.0	3.6	6.3	.66	0
368	18695	Butanoic acid, 2-bromo-, 2-phenylethyl ester	42.0	23.3	243.0	1.74	1
369	18698	Butanoic acid, 2-bromo-, 3-phenylpropyl ester	48.3	16.4	83.3	3.05	1
370	36601	Butanoic acid, 4-bromo-, ethyl ester	2.3	12.3	20.3	.07	0
371	30221	Butanoic acid, 2-ethyl-, 2-bromoethyl ester	3.0	7.0	8.3	.47	0
372	30220	Butanoic acid, 2-ethyl-, 2-chloroethyl ester	2.3	3.6	5.0	.73	0
373	30357	Butanoic acid, 2-ethyl-, 2-(2-chlorophenoxy)-1-methylethyl ester	6.0	7.6	14.3	1.12	1
374	6313	Butanoic acid, 2-ethyl-, 1,2-ethanediyl ester	4.2	3.0	5.0	1.22	1
375	30225	Butanoic acid, 2-ethyl-, 2-phenylethyl ester	15.0	10.3	153.0	1.44	1
376	30226	Butanoic acid, 2-ethyl-, 3-phenylpropyl ester	66.0	7.4	227.0	9.08	2
377	24767	Butanoic acid, 2-ethyl-, 2-propenyl ester	7.5	16.5	26.5	.23	0
378	11592	Butanoic acid, 3-hydroxy-, ethyl ester	5.8	5.7	7.8	1.21	1
379	33304	Butanoic acid, 2-methyl-, 1,1-dimethyl-2-propynyl ester	6.0	11.0	14.3	1.32	1
380	33308	Butanoic acid, 2-methyl-, 1-ethyl-2-propenyl ester	3.6	13.6	14.6	.58	0

Table 1.--Effectiveness of chemicals tested as attractants for the Caribbean fruit fly--Continued

Item	AI3 No. (AI3-)	Test chemical	Mean No. flies attracted by--			Ratio (test/EtOH)	Class
			Test chemical	EtOH	AI3-19816		
381	33349	Butanoic acid, 2-methyl-, 3-hexenyl ester, (Z)-	4.6	6.3	9.6	0.78	0
382	34503	Butanoic acid, 2-methyl-, 2-phenylethyl ester	46.0	9.3	60.6	5.00	2
383	31477	Butanoic acid, 3-methyl-, 4-bromophenyl ester	10.4	15.6	11.4	.62	0
384	33685	Butanoic acid, 3-methyl-, 1,4-butanediyl ester	4.3	6.0	8.3	.74	0
385	31425	Butanoic acid, 3-methyl-, 4-chlorophenyl ester	30.4	22.2	35.4	1.28	1
386	33684	Butanoic acid, 3-methyl-, 1,2-dimethyl- 1,2-ethanediyl ester	1.6	4.3	7.0	.28	0
387	36015	Butanoic acid, 3-methyl-, 3,7-dimethyl- 2,6-octadienyl ester, (E)-	31.5	19.0	27.5	2.00	1
388	33681	Butanoic acid, 3-methyl-, 1,2-ethanediyl ester	5.0	6.3	19.3	.75	0
389	36262	Butanoic acid, 3-methyl-, 2-hexenyl ester, (E)-	3.2	7.7	10.2	.25	0
390	35966	Butanoic acid, 3-methyl-, 3-hexenyl ester, (z)-	2.3	6.6	10.0	.37	0
391	6344	Butanoic acid, 3-methyl-, 1-methyl-1,2- ethanediyl ester	2.6	5.0	4.3	.55	0
392	33683	Butanoic acid, 3-methyl-, 1-methyl-1,3- propanediyl ester	8.0	3.5	7.5	2.80	1
393	30598	Butanoic acid, 3-methyl-, octyl ester	11.0	21.5	41.5	.64	0
394	31844	Butanoic acid, 3-methyl-, 4-(3- oxobutyl)phenyl ester	26.3	14.3	---	1.65	1
395	30606	Butanoic acid, 3-methyl-, 2-phenylethyl ester	7.6	10.0	97.6	.61	0
396	2953	Butanoic acid, 3-methyl-, phenylmethyl ester	10.6	5.3	15.0	1.70	1
397	24272	Butanoic acid, 3-methyl-, 3-phenyl-2- propenyl ester	6.0	10.5	36.5	1.29	1
398	31424	Butanoic acid, 3-methyl-, 1-phenylpropyl ester	14.2	8.8	277.8	1.36	1
399	30608	Butanoic acid, 3-methyl-, 3-phenylpropyl ester	23.0	8.2	223.8	2.73	1
400	33682	Butanoic acid, 3-methyl-, 1,3- propanediyl ester	6.3	2.6	18.3	3.77	1
401	24271	Butanoic acid, 3-methyl-, 2-propenyl ester	5.0	4.6	12.0	1.68	1
402	36524	Butanoic acid, 3-oxo-, 2-methylpropyl ester	3.0	1.6	3.3	1.83	1
403	21284	2-Butanol, 4-(4-methoxyphenyl)-, acetate	26.0	8.7	302.5	5.91	2
404	21283	2-Butanol, 4-[4-[(1- methylethyl)phenyl]]-, acetate	41.0	8.7	302.5	3.59	1
405	17322	1-Butanone, 3-(3,4-dimethoxyphenyl)-1- phenyl-	5.5	11.5	21.0	.25	0
406	2062	1-Butanone, 1-phenyl-	9.2	6.3	1.6	1.06	1
407	25404	1-Butanone, 1-(6-propyl-1,3-benzodioxol- 5-yl)-	14.8	8.4	---	1.91	1
408	31841	2-Butanone, 4-[4-[2- (acetyloxy)ethoxy]phenyl]-	56.3	17.0	---	3.31	1
409	31840	2-Butanone, 4-[2-(acetyloxy)phenyl]-	26.6	17.0	---	1.56	1

Table 1.--Effectiveness of chemicals tested as attractants for the Caribbean fruit fly--Continued

Item	AI3 No. (AI3-)	Test chemical	Mean No. flies attracted by--			Ratio (test/EtOH)	Class
			Test chemical	EtOH	AI3-19816		
410	31895	2-Butanone, 4-[3-(acetyloxy)phenyl]-	109.7	13.6	---	6.14	2
411	31833	2-Butanone, 4-[4-(acetyloxy)phenyl]-	50.7	13.4	---	4.25	1
412	18969	2-Butanone, 4-(4-chlorophenyl)-	6.0	4.5	2.0	1.59	1
413	21978	2-Butanone, 4-(2,4-dimethylphenyl)-	89.3	22.6	9.6	3.91	1
414	31989	2-Butanone, 4-[(4-formyloxy)phenyl]-	17.1	7.0	.5	2.60	1
415	31832	2-Butanone, 4-[4-(2-hydroxyethoxy)phenyl]-	83.0	35.3	---	3.07	1
416	31837	2-Butanone, 4-(4-hydroxy-3-methoxyphenyl)-	104.6	20.0	11.0	4.04	1
417	26271	2-Butanone, 4-(4-hydroxy-3-methoxyphenyl)-3-methyl-	40.3	12.6	539.3	7.46	2
418	31898	2-Butanone, 4-[3-methoxy-4-(1-oxopropoxy)phenyl]-	169.8	17.6	13.4	10.40	2
419	21272	2-Butanone, 4-(2-methoxyphenyl)-	10.3	3.3	---	4.14	1
420	20279	2-Butanone, 4-(4-methoxyphenyl)-	22.6	6.3	---	7.32	2
421	21273	2-Butanone, 4-[4-(1-methylethyl)phenyl]-	47.4	12.0	33.6	6.53	2
422	25082	2-Butanone, 4-[2-methyl-5-(1-methylethenyl)-1-cyclopenten-1-yl]-	46.5	6.5	14.5	8.81	2
423	21979	2-Butanone, 4-(2-methylphenyl)-	129.1	20.0	6.4	8.85	2
424	15123	2-Butanone, 4-phenyl-	17.0	11.0	12.1	2.32	1
425	32225	2-Butanone, 4-(phenylthio)-	29.6	12.6	---	2.29	1
426	15489	2-Butenoic acid, bis(1-methylethyl) ester	9.3	4.6	17.3	1.72	1
427	6047	2-Butenoic acid, cyclohexyl ester	2.6	2.0	9.3	1.11	1
428	644	2-Butenoic acid, dibutyl ester, (Z)-	1.3	4.0	6.3	.33	0
429	32716	2-Butenedioic acid, bis(2-methylpropyl) ester, (E)-	5.0	5.6	10.0	.47	0
430	5613	2-Butenedioic acid, diethyl ester, (E)-	1.6	1.3	6.0	1.00	1
431	678	2-Butenedioic acid, diethyl ester, (Z)-	1.0	2.6	5.6	.38	0
432	32717	2-Butenedioic acid, dipentyl ester, (E)-	11.6	7.3	34.6	4.01	1
433	418	2-Butenedioic acid, dipentyl ester, (Z)-	1.0	2.0	3.5	.62	0
434	33694	2-Butenedioic acid, dipropyl ester, (E)-	8.3	8.3	14.6	1.24	1
435	33812	2-Butenedioic acid, dipropyl ester, (Z)-	3.0	4.0	6.3	.80	0
436	21543	2-Butenoic acid, heptyl ester	7.3	6.0	12.0	2.31	1
437	33802	2-Butenoic acid, 2-methylbutyl ester, (E)-	11.0	11.3	25.3	1.30	1
438	52372	2-Butenoic acid, 4-bromo-, ethyl ester	1.6	5.3	5.6	.56	0
439	33792	2-Butenoic acid, 2-methyl-, butyl ester, (E)-	12.0	3.0	12.0	4.00	1
440	36201	2-Butenoic acid, 2-methyl-, 3,7-dimethyl-2,6-octadienyl ester, (E,?)	23.0	9.3	15.0	2.17	1
441	36033	2-Butenoic acid, 2-methyl-, 3,7-dimethyl-6-octenyl ester, (E)-	6.3	3.6	9.0	1.06	1
442	35965	2-Butenoic acid, 2-methyl-, 3-hexenyl ester, (2E, 3Z)-	2.3	7.0	11.0	.28	0
443	33800	2-Butenoic acid, 2-methyl-, 1-methylbutyl ester, (E)-	4.0	4.0	12.6	.80	0
444	33798	2-Butenoic acid, 2-methyl-, 3-methylbutyl ester, (E)-	4.6	9.6	18.3	.73	0
445	33801	2-Butenoic acid, 2-methyl-, 1-methylpentyl ester, (E)-	7.7	2.5	7.2	2.78	1
446	33803	2-Butenoic acid, 2-methyl-, 2-methylpentyl ester, (E)-	4.6	1.3	8.0	2.00	1

Table 1.--Effectiveness of chemicals tested as attractants for the Caribbean fruit fly--Continued

Item	AI3 No. (AI3-)	Test chemical	Mean No. flies attracted by--			Ratio (test/EtOH)	Class
			Test chemical	EtOH	AI3-19816		
447	33797	2-Butenoic acid, 2-methyl-, 2-methylpropyl ester, (E)-	0.0	1.0	1.0	0.00	0
448	33794	2-Butenoic acid, 2-methyl-, nonyl ester, (E)-	10.6	8.3	16.3	2.33	1
449	33793	2-Butenoic acid, 2-methyl-, octyl ester, (E)-	8.0	3.0	10.6	2.76	1
450	33795	2-Butenoic acid, 2-methyl-, propyl ester, (E)-	6.3	3.0	10.6	3.30	1
451	32913	2-Butenoic acid, 3-methyl-, ethyl ester	.0	8.0	24.0	.00	0
452	33555	2-Butenoic acid, 3-methyl-, heptyl ester	6.3	6.0	16.0	1.05	1
453	33690	2-Butenoic acid, 3-methyl-, 1-methylbutyl ester	4.6	10.0	22.6	1.02	1
454	33688	2-Butenoic acid, 3-methyl-, 3-methylbutyl ester	9.6	10.6	17.6	.64	0
455	33686	2-Butenoic acid, 3-methyl-, 1-methylethyl ester	3.0	3.0	5.0	1.00	1
456	33693	2-Butenoic acid, 3-methyl-, 1-methylheptyl ester	5.3	3.3	12.0	1.39	1
457	33692	2-Butenoic acid, 3-methyl-, 1-methylhexyl ester	2.6	6.6	6.6	.45	0
458	33691	2-Butenoic acid, 3-methyl-, 1-methylpentyl ester	3.6	2.6	10.0	1.38	1
459	33687	2-Butenoic acid, 3-methyl-, 2-methylpropyl ester	2.3	6.6	8.6	.75	0
460	32916	2-Butenoic acid, 3-methyl-, octyl ester	2.6	2.0	9.3	.88	0
461	32915	2-Butenoic acid, 3-methyl-, pentyl ester	7.2	5.7	15.5	3.58	1
462	33552	2-Butenoic acid, 3-methyl-, propyl ester	1.0	3.0	5.0	.33	0
463	35970	2-Buten-1-ol, 3-methyl-, acetate	3.0	3.3	4.0	1.16	1
464	80480	3-Buten-1-ol, 3-methyl-	2.3	8.3	8.0	.51	0
465	28424	3-Buten-2-ol	102.0	74.3	110.6	3.41	1
466	23122	3-Buten-2-ol, 2-methyl-	3.6	3.3	4.3	1.61	1
467	36073	3-Buten-2-ol, 3-methyl-4-(2,6,6-trimethyl-2-cyclohexen-1-yl)-	6.3	4.6	12.0	2.44	1
468	25084	3-Buten-2-ol, 4-(2,6,6-trimethyl-1-cyclohexen-1-yl)-	6.0	1.3	3.0	3.83	1
469	36123	3-Buten-2-ol, 4-(2,6,6-trimethyl-1-cyclohexen-1-yl)-, acetate	11.0	5.0	7.6	3.15	1
470	36071	3-Buten-2-ol, 4-(2,6,6-trimethyl-2-cyclohexen-1-yl)-	10.0	6.6	7.0	2.19	1
471	36072	3-Buten-2-ol, 4-(2,6,6-trimethyl-2-cyclohexen-1-yl)-, acetate	2.3	3.0	3.0	1.16	1
472	32345	3-Buten-2-one, 4-[3-(acetyloxy)phenyl]-	32.3	6.5	---	4.68	1
473	32313	3-Buten-2-one, 4-[4-(acetyloxy)phenyl]-	4.5	11.5	21.0	.68	0
474	24756	3-Buten-2-one, 4-bicyclo[2.2.1]hept-2-yl-	9.0	10.3	---	.86	0
475	24769	3-Buten-2-one, 4-cyclohexyl-	8.0	10.3	---	.84	0
476	21977	3-Buten-2-one, 4-(2,4-dimethylphenyl)-	62.3	34.4	---	1.78	1
477	5777	3-Buten-2-one, 4-(2-furanyl)-	2.0	4.5	---	.44	0
478	38094	3-Buten-2-one, 3-(1-methylethyl)-4-phenyl-	22.6	13.3	560.6	2.13	1
479	21252	3-Buten-2-one, 4-[4-(1-methylethyl)-phenyl]-	20.0	5.6	17.2	6.92	2
480	21938	3-Buten-2-one, 4-(2-methylphenyl)-	50.6	17.3	---	4.27	1

Table 1.--Effectiveness of chemicals tested as attractants for the Caribbean fruit fly--Continued

Item	AI3 No. (AI3-)	Test chemical	Mean No. flies attracted by--			Ratio (test/EtOH)	Class
			Test chemical	EtOH	AI3-19816		
481	36074	3-Buten-2-one, 3-methyl-4-(2,6,6-trimethyl-2-cyclohexen-1-yl)-	5.3	2.3	4.6	3.46	1
482	944	3-Buten-2-one, 4-phenyl-	3.0	11.5	21.0	.13	0
483	25093	3-Buten-2-one, 4-(2,6,6-trimethyl-3-cyclohexen-1-yl)-	28.7	9.5	370.0	3.45	1
484	24774	3-Buten-2-one, 4-(2,4,6-trimethyl-3-cyclohexen-1-yl)-	37.6	17.0	---	2.21	1
485	37252	2-Butyn-1-ol	46.3	6.0	17.0	4.63	1
486	31490	Carbonodithioic acid, S-(6-chloro-1,3-benzodioxol-5-yl) O-ethyl ester	22.8	15.4	10.6	1.70	1
487	31466	Carbonodithioic acid, S-cyclopentyl O-ethyl ester	3.0	3.4	16.8	1.18	1
488	31462	Carbonodithioic acid, O-ethyl S-methyl ester	2.0	15.2	9.2	.31	0
489	31464	Carbonodithioic acid, O-ethyl S-(1-methylethyl) ester	.8	2.6	2.6	.40	0
490	31467	Carbonodithioic acid, O-ethyl S-(2-phenylethyl) ester	10.2	13.0	19.6	.73	0
491	31463	Carbonodithioic acid, O-ethyl S-2-propenyl ester	3.4	7.4	7.0	.63	0
492	31465	Carbonodithioic acid, O-ethyl S-2-propynyl ester	2.8	3.4	16.8	1.01	1
493	35996	Cyclobutanecarboxylic acid, 2-phenylethyl ester	22.2	20.2	37.7	1.11	1
494	35997	Cyclobutanecarboxylic acid, 3-phenylpropyl ester	11.2	20.2	37.7	.82	0
495	28171	1,3-Cyclobutanedione, 2,2-diethyl-4,4-dimethyl-	16.3	5.6	9.6	5.03	2
496	36515	Cycloheptanol	7.0	14.0	158.3	.74	0
497	26468	1,4-Cyclohexadiene, 1-methyl-4-(1-methylethyl)-	1.6	5.0	3.6	1.04	1
498	14286	Cyclohexaneacetic acid, butyl ester	4.0	4.3	13.3	1.60	1
499	14042	Cyclohexaneacetic acid, ethyl ester	5.3	10.6	17.3	1.29	1
500	33549	Cyclohexaneacetic acid, heptyl ester	18.3	10.6	13.6	1.75	1
501	33548	Cyclohexaneacetic acid, pentyl ester	14.0	6.6	16.6	1.89	1
502	18692	Cyclohexaneacetic acid, 2-phenylethyl ester	15.0	26.0	199.6	.66	0
503	35990	Cyclohexaneacetic acid, 3-phenylpropyl ester	7.2	20.2	37.7	.45	0
504	33547	Cyclohexaneacetic acid, propyl ester	6.6	12.3	24.0	.43	0
505	14117	Cyclohexanebutanoic acid, butyl ester	9.0	15.3	22.3	.47	0
506	33551	Cyclohexanebutanoic acid, heptyl ester	5.0	4.3	9.3	.95	0
507	14237	Cyclohexanebutanoic acid, pentyl ester	8.0	6.6	16.6	1.25	1
508	18694	Cyclohexanebutanoic acid, 2-phenylethyl ester	71.0	49.3	266.6	.91	0
509	35991	Cyclohexanebutanoic acid, 3-phenylpropyl ester	12.0	20.2	37.7	.72	0
510	19660	Cyclohexanecarboxylic acid, 2-bromoethyl ester	23.6	3.3	4.0	9.80	2
511	36054	Cyclohexanecarboxylic acid, 2-cyclohexylethyl ester	5.2	10.5	36.5	1.14	1
512	36055	Cyclohexanecarboxylic acid, 3-cyclohexylpropyl ester	28.0	10.5	36.5	4.05	1
513	22729	Cyclohexanecarboxylic, cyclopentyl ester	3.3	7.3	161.3	.47	0

Table 1.--Effectiveness of chemicals tested as attractants for the Caribbean fruit fly--Continued

Item	AI3 No. (AI3-)	Test chemical	Mean No. flies attracted by--			Ratio (test/EtOH)	Class
			Test chemical	EtOH	AI3-19816		
514	33532	Cyclohexanecarboxylic acid, heptyl ester	46.1	18.1	---	3.20	1
515	19663	Cyclohexanecarboxylic acid, hexyl ester	8.6	9.6	50.3	.82	0
516	4803	Cyclohexanecarboxylic acid, methyl ester	39.7	71.0	209.0	.44	0
517	19662	Cyclohexanecarboxylic acid, 2-phenylethyl ester	23.3	9.3	92.3	2.16	1
518	19661	Cyclohexanecarboxylic acid, phenylmethyl ester	17.6	10.0	154.3	1.51	1
519	19816	Cyclohexanecarboxylic acid, 3-phenylpropyl ester	118.5	11.5	29.0	13.07	2
520	19665	Cyclohexanecarboxylic acid, 1-propylbutyl ester	251.6	33.6	154.0	5.49	2
521	31321	Cyclohexanecarboxylic acid, 4(or 5)-bromo-2-methyl-	3.0	4.5	13.5	.62	0
522	31322	Cyclohexanecarboxylic acid, 4(or 5)-bromo-2-methyl-, ethyl ester	236.5	71.0	209.0	2.92	1
523	31324	Cyclohexanecarboxylic acid, 4(or 5)-bromo-2-methyl-, 1-methylpropyl ester	47.5	42.0	130.5	1.20	1
524	31628	Cyclohexanecarboxylic acid, 4(or 5)-bromo-2-methyl-, 2-propenyl ester	1.3	4.0	11.3	.76	0
525	31800	Cyclohexanecarboxylic acid, 4(or 5)-chloro-2-methyl-, 2-bromoethyl ester	150.0	43.5	123.0	2.38	1
526	31803	Cyclohexanecarboxylic acid, 4(or 5)-chloro-2-methyl-, 2-(2-butoxyethoxy)ethyl ester	3.6	3.0	23.6	1.44	1
527	31802	Cyclohexanecarboxylic acid, 4(or 5)-chloro-2-methyl-, 2-butoxyethyl ester	12.0	4.6	11.0	2.61	1
528	31560	Cyclohexanecarboxylic acid, 4(or 5)-chloro-2-methyl-, 1,1-dimethylethyl ester	1.3	3.6	7.0	.53	0
529	31806	Cyclohexanecarboxylic acid, 4(or 5)-chloro-2-methyl-, 1-ethylpentyl ester	.6	2.0	7.0	.13	0
530	31564	Cyclohexanecarboxylic acid, 4(or 5)-chloro-2-methyl-, 1-ethylpropyl ester	5.0	7.3	12.6	1.11	1
531	31805	Cyclohexanecarboxylic acid, 4(or 5)-chloro-2-methyl-, hexyl ester	19.3	13.6	22.3	2.07	1
532	31804	Cyclohexanecarboxylic acid, 4(or 5)-chloro-2-methyl-, 3-methoxybutyl ester	2.6	2.0	7.0	.80	0
533	31567	Cyclohexanecarboxylic acid, 4(or 5)-chloro-2-methyl-, 2-methylpentyl ester	1.3	.6	1.0	1.33	1
534	31561	Cyclohexanecarboxylic acid, 4(or 5)-chloro-2-methyl-, pentyl ester	4.3	1.6	5.0	3.08	1
535	31569	Cyclohexanecarboxylic acid, 4(or 5)-chloro-2-methyl-, 2-phenylethyl ester	4.6	3.3	6.3	1.81	1
536	31331	Cyclohexanecarboxylic acid, 4,5-dichloro-2-methyl-, 1-methylpropyl ester	6.0	4.5	13.5	1.32	1
537	20342	Cyclohexanecarboxylic acid, 1-hydroxy-, 2-methylcyclohexyl ester	5.5	37.5	101.0	.23	0
538	21687	Cyclohexanecarboxylic acid, 2-methyl-, 2-chloroethyl ester	3.6	2.3	1.6	1.26	1
539	36056	Cyclohexanecarboxylic acid, 2-methyl-, 2-cyclohexylethyl ester, trans-	17.7	10.5	36.5	2.32	1
540	36057	Cyclohexanecarboxylic acid, 2-methyl-, 3-cyclohexylpropyl ester, trans-	31.0	10.5	36.5	3.53	1

Table 1.--Effectiveness of chemicals tested as attractants for the Caribbean fruit fly--Continued

Item	AI3 No. (AI3-)	Test chemical	Mean No. flies attracted by--			Ratio (test/EtOH)	Class
			Test chemical	EtOH	AI3-19816		
541	33521	Cyclohexanecarboxylic acid, 2-methyl-, 1-methylpropyl ester, trans-	20.2	71.0	209.0	0.28	0
542	33526	Cyclohexanecarboxylic acid, 2-methyl-, octyl ester, trans-	8.5	14.0	---	1.06	1
543	35992	Cyclohexanecarboxylic acid, 2-methyl-, 3-phenylpropyl ester, trans-	23.2	20.2	37.7	1.70	1
544	3883	Cyclohexaneethanol	56.6	24.3	61.3	3.96	1
545	4101	Cyclohexaneethanol, propanoate	6.3	18.6	36.6	.55	0
546	18696	Cyclohexanehexanoic acid, 2-phenylethyl ester	21.6	7.0	49.6	1.80	1
547	1172	Cyclohexanemethanol	3.7	7.2	9.2	.66	0
548	36509	Cyclohexanemethanol, alpha-butyl-	12.0	26.0	426.0	.46	0
549	36511	Cyclohexanemethanol, alpha-ethyl-	29.0	26.0	426.0	.97	0
550	36516	Cyclohexanemethanol, alpha-methyl-	19.3	17.0	246.6	1.80	1
551	36512	Cyclohexanemethanol, alpha-1-propenyl-	18.0	19.6	300.3	1.39	1
552	82628	Cyclohexanemethanol, alpha-propyl-	18.6	19.6	300.3	.75	0
553	13193	Cyclohexanepropanoic acid, butyl ester	7.0	7.3	10.6	1.11	1
554	33550	Cyclohexanepropanoic acid, heptyl ester	14.3	9.0	18.0	2.13	1
555	14189	Cyclohexanepropanoic acid, methyl ester	3.3	7.6	16.6	.57	0
556	18693	Cyclohexanepropanoic acid, 2-phenylethyl ester	1.3	8.0	38.6	.35	0
557	23811	Cyclohexanepropanoic acid, phenylmethyl ester	22.0	32.0	117.3	.85	0
558	23816	Cyclohexanepropanoic acid, 3- phenylpropyl ester	15.6	5.3	135.3	2.52	1
559	36433	Cyclohexanepropanol	118.6	34.3	119.0	3.81	1
560	36060	Cyclohexanepropanol, propanoate	14.5	10.5	36.5	2.23	1
561	61848	Cyclohexanol, 2-chloro-	2.6	6.2	2.8	.63	0
562	2503	Cyclohexanol, 4-(1,1-dimethylethyl)-	7.3	6.3	7.3	1.13	1
563	36523	Cyclohexanol, 4-(1,1-dimethylethyl)-, acetate	10.5	10.5	23.2	1.19	1
564	431	Cyclohexanol, 4-(1,1-dimethylpropyl)-	5.0	4.5	3.7	.72	0
565	28630	Cyclohexanol, 1-(2-propenyl)-	86.6	89.3	200.6	2.11	1
566	4092	Cyclohexanone, 4-(1,1-dimethylethyl)-	4.6	2.0	3.3	2.61	1
567	15191	Cyclohexene, 1-methyl-4-(1- methylethenyl)-, (+)-	8.3	11.6	19.3	1.41	1
568	24378 -X	Cyclohexene, 1-methyl-4-(1- methylethylidene)-	15.6	6.3	16.6	2.02	1
569	33455	1-Cyclohexene-1-acetonitrile, alpha,alpha-bis(2-propenyl)-	33.6	34.3	119.0	2.05	1
570	4981 -X	1-Cyclohexene-1-acetonitrile, alpha- 2-propenyl-	2.3	6.6	10.6	1.02	1
571	35767	3-Cyclohexene-1-carboxamide, N,N-diethyl-	5.0	8.3	66.0	.65	0
572	32141	3-Cyclohexene-1-carboxylic acid	5.3	3.6	4.3	1.83	1
573	36090	3-Cyclohexene-1-carboxylic acid, 2- cyclohexylethyl ester	17.0	18.6	36.6	.93	0
574	36091	3-Cyclohexene-1-carboxylic acid, 3- cyclohexylpropyl ester	33.6	18.6	36.6	3.94	1
575	33544	3-Cyclohexene-1-carboxylic acid, hexyl ester	51.9	12.5	---	4.52	1
576	35993	3-Cyclohexene-1-carboxylic acid, 3- phenylpropyl ester	13.2	20.2	37.7	1.02	1

Table 1.--Effectiveness of chemicals tested as attractants for the Caribbean fruit fly--Continued

Item	AI3 No. (AI3-)	Test chemical	Mean No. flies attracted by--			Ratio (test/EtOH)	Class
			Test chemical	EtOH	AI3-19816		
577	20221	3-Cyclohexene-1-carboxylic acid, 6-methyl-	0.6	5.0	4.3	0.22	0
578	21693	3-Cyclohexene-1-carboxylic acid, 6-methyl-, 2-bromoethyl ester	5.3	2.3	21.3	2.93	1
579	36085	3-Cyclohexene-1-carboxylic acid, 6-methyl-, 2-cyclohexylethyl ester, trans-	17.0	18.6	36.6	.76	0
580	36086	3-Cyclohexene-1-carboxylic acid, 6-methyl-, 3-cyclohexylpropyl ester, trans-	19.6	18.6	36.6	1.66	1
581	21488	3-Cyclohexene-1-carboxylic acid, 6-methyl-, 2-ethylbutyl ester	17.0	25.0	103.5	.70	0
582	21848	3-Cyclohexene-1-carboxylic acid, 6-methyl-, 2-phenylethyl ester	14.6	48.3	266.6	.30	0
583	35995	3-Cyclohexene-1-carboxylic acid, 6-methyl-, 3-phenylpropyl ester, trans-	17.7	20.2	37.7	1.21	1
584	30662	2-Cyclohexene-1-hexanoic acid, 2-bromoethyl ester	2.6	4.3	4.0	1.06	1
585	30667	2-Cyclohexene-1-hexanoic acid, 2-(2-butoxyethoxy)ethyl ester	9.0	29.5	109.7	.64	0
586	21708	2-Cyclohexene-1-hexanoic acid, butyl ester	17.5	25.0	103.5	.66	0
587	21730	2-Cyclohexene-1-hexanoic acid, 2-chloroethyl ester	16.0	41.5	160.5	.43	0
588	21709	2-Cyclohexene-1-hexanoic acid, ethyl ester	21.0	54.0	158.0	.38	0
589	21707	2-Cyclohexene-1-hexanoic acid, methyl ester	9.0	29.0	163.0	.31	0
590	30664	2-Cyclohexene-1-hexanoic acid, pentyl ester	46.0	27.0	83.0	2.16	1
591	275	3-Cyclohexene-1-methanol, alpha,alpha,4-trimethyl-	40.0	16.6	25.3	2.99	1
592	522	3-Cyclohexene-1-methanol, alpha,alpha,4-trimethyl-, acetate	19.0	29.0	163.0	.65	0
593	28610	1-Cyclohexen-1-ol	23.3	46.0	357.0	.53	0
594	36522	2-Cyclohexen-1-ol, 2-methyl-5-(1-methylethenyl)-, (-)-	18.6	6.3	17.3	1.75	1
595	36200	2-Cyclohexen-1-one, 2-methyl-5-(1-methylethenyl)-, (-)-	5.0	3.3	4.3	2.11	1
596	37207	Cyclopentadecanol	3.0	5.0	8.0	.66	0
597	37209	Cyclopentadecanone	.6	6.6	5.3	.13	0
598	33283	Cyclopentanecarboxylic acid, 2,4-hexadienyl ester	17.0	9.6	165.0	2.03	1
599	36002	Cyclopentanecarboxylic acid, 2-phenylethyl ester	7.0	20.2	37.7	.46	0
600	36003	Cyclopentanecarboxylic acid, 3-phenylpropyl ester	6.7	20.2	37.7	.36	0
601	21746	Cyclopentanecarboxylic acid, 1-hydroxy-, 2-chloroethyl ester	9.6	3.3	23.3	5.30	2
602	21756	Cyclopentanecarboxylic acid, 2-oxo-, 2-chloroethyl ester	1.3	2.0	8.0	.53	0
603	28619	Cyclopentaneethanol	146.6	193.0	406.0	2.06	1
604	28356	Cyclopentanemethanol	291.1	27.8	125.1	7.93	2
605	36552	Cyclopentanone, 2-butyl-	8.6	3.3	4.6	3.88	1

Table 1.--Effectiveness of chemicals tested as attractants for the Caribbean fruit fly--Continued

Item	AI3 No. (AI3-)	Test chemical	Mean No. flies attracted by--			Ratio (test/EtOH)	Class
			Test chemical	EtOH	AI3-19816		
606	36079	Cyclopentanone, 2-(3,7-dimethyl-2,6-octadienyl)-	8.0	3.3	6.3	2.75	1
607	36077	Cyclopentanone, 2-(2-hexenyl)-	3.6	3.3	7.3	1.03	1
608	36076	Cyclopentanone, 2-(3-methyl-2-butenyl)-	92.3	10.0	26.0	6.08	2
609	36075	Cyclopentanone, 3-methyl-2-pentyl-	3.3	6.3	12.3	.44	0
610	36598	2-Cyclopenten-1-one, 2-hydroxy-3-methyl-	1.3	4.6	11.6	.25	0
611	36031	2-Cyclopenten-1-one, 4-hydroxy-3-methyl-2-(2-pentenyl)-	1.6	4.0	3.6	.56	0
612	15185	2-Cyclopenten-1-one, 3-methyl-2-pentyl-	9.0	8.3	13.0	1.10	1
613	24692	Cyclopropane, 1,1-dichloro-2-ethenyl-	3.0	6.3	11.3	.60	0
614	36058	Cyclopropanecarboxylic acid, 2-cyclohexylethyl ester	6.5	10.5	36.5	.97	0
615	36059	Cyclopropanecarboxylic acid, 3-cyclohexylpropyl ester	10.7	10.5	36.5	2.41	1
616	35994	Cyclopropanecarboxylic acid, 2-phenylethyl ester	15.2	20.2	37.7	.82	0
617	36001	Cyclopropanecarboxylic acid, 3-phenylpropyl ester	12.7	20.2	37.7	.96	0
618	30998	Cyclopropanecarboxylic acid, 2,2-dimethyl-3-(2-methyl-1-propenyl)-, 2-bromo-1-(6-bromo-1,3-benzodioxol-5-yl)propyl ester	8.0	4.5	13.5	1.75	1
619	30974	Cyclopropanecarboxylic acid, 2,2-dimethyl-3-(2-methyl-1-propenyl)-, 2-bromoethyl ester	10.3	7.6	11.6	2.43	1
620	21557	Cyclopropanecarboxylic acid, 2,2-dimethyl-3-(2-methyl-1-propenyl)-, (6-chloro-1,3-benzodioxol-5-yl)methyl ester	4.0	2.0	7.3	1.50	1
621	31304	Cyclopropanecarboxylic acid, 2,2-dimethyl-3-(2-methyl-1-propenyl)-, 1-(6-chloro-1,3-benzodioxol-5-yl)propyl ester	2.3	5.0	26.6	.42	0
622	30753	Cyclopropanecarboxylic acid, 2,2-dimethyl-3-(2-methyl-1-propenyl)-, 2,3-dibromo-1,1-dimethylpropyl ester	3.3	3.6	25.3	1.14	1
623	20836	Cyclopropanemethanol, 2,2-dimethyl-3-(2-methylpropenyl)-	4.6	4.6	7.0	1.13	1
624	37170	Cyclopropanol, 2,2-dimethyl-3-(1-methylethyl)-, propanoate	2.3	6.6	12.3	.52	0
625	36040	2,4-Decadien-1-ol, (E,E)-	7.0	3.6	6.3	1.94	1
626	4860	Decanal	2.0	54.0	158.0	.03	0
627	35704	Decanamide, N,N-bis(1-methylethyl)-	6.6	10.3	12.3	.42	0
628	35234	Decanamide, N,N-dibutyl-	4.3	6.0	12.0	.44	0
629	34697	Decanamide, N,N-diethyl-	4.0	2.5	5.0	.44	0
630	35796	Decanamide, N,N-dipentyl-	14.6	20.3	34.0	.89	0
631	35233	Decanamide, N,N-dipropyl-	4.0	4.6	12.3	1.02	1
632	36022	Decane, 1,1-dimethoxy-	15.0	20.0	29.5	1.07	1
633	11545	2-Decanol	16.3	12.0	19.0	1.18	1
634	19948	3-Decanol	12.3	13.6	23.6	.94	0
635	19949	4-Decanol	3.0	2.3	1.6	1.16	1
636	19950	5-Decanol	2.7	4.5	5.0	.67	0
637	36549	2-Decenoic acid, methyl ester	10.0	4.6	7.3	1.40	1
638	36045	2-Decen-1-ol, (E)-	12.0	5.6	11.6	2.44	1
639	36046	2-Decen-1-ol, acetate, (E)-	15.3	5.0	7.3	3.21	1
640	82647	9-Decen-1-ol	14.0	7.6	12.6	2.07	1

Table 1.--Effectiveness of chemicals tested as attractants for the Caribbean fruit fly--Continued

Item	AI3 No. (AI3-)	Test chemical	Mean No. flies attracted by--			Ratio (test/EtOH)	Class
			Test chemical	EtOH	AI3-19816		
641	34397	9-Decen-1-ol, acetate	6.2	6.5	8.0	0.81	0
642	37216	2-Decyn-1-ol	16.5	3.7	10.2	2.91	1
643	37272	3-Decyn-1-ol	1.0	2.6	1.0	.44	0
644	24589	1,4-Dioxacycloheptadecane-5,17-dione	4.6	5.3	15.3	1.45	1
645	30654	1,3-Dioxane, 2-(9-decenyl)-4-methyl-	15.6	25.6	97.6	.81	0
646	30659	1,3-Dioxane, 2-(9-decenyl)-5-methyl-5-nitro-	19.0	29.5	109.7	1.11	1
647	30690	1,3-Dioxane, 2-decyl-4-methyl-	28.0	54.0	158.0	.51	0
648	31272	1,3-Dioxane, 5,5-diethyl-2-methyl-2-phenyl-	17.0	7.2	239.4	3.86	1
649	31796	1,3-Dioxane, 2,5-dimethyl-5-methyl-2-phenyl-	11.6	9.0	162.3	1.42	1
650	32658	1,3-Dioxane, 2,4-dimethyl-2-(2-phenylethyl)-	8.3	7.0	119.6	3.30	1
651	31391	1,3-Dioxane, 2,4-dimethyl-2-(2-thienyl)-	40.4	20.2	6.6	1.69	1
652	31793	1,3-Dioxane, 5-ethyl-2,5-dimethyl-2-(phenylmethyl)-	4.5	9.5	87.5	1.09	1
653	32432	1,3-Dioxane, 2-ethyl-5-methyl-2-phenyl-5-propyl-	12.6	9.3	204.3	2.02	1
654	31529	1,3-Dioxane, 2-ethyl-4,4,5-trimethyl-2-phenyl-	7.6	8.8	277.8	1.07	1
655	31283	1,3-Dioxane, 2-ethyl-4,4,6-trimethyl-2-phenyl-	10.0	8.2	223.8	.78	0
656	32707	1,3-Dioxane, 2,4,5,5-tetramethyl-2-(2-phenylethyl)-	11.1	9.3	172.3	2.02	1
657	31533	1,3-Dioxane, 2,4,5,5-tetramethyl-2-(phenylmethyl)-	8.2	9.2	131.6	1.88	1
658	31418	1,3-Dioxane, 2,5,5-triethyl-2-phenyl-	6.8	7.4	227.0	1.92	1
659	22885	1,3-Dioxane, 2,4,6-trimethyl-2-(phenylmethyl)-	75.2	7.7	306.5	10.16	2
660	22886	1,3-Dioxane, 2,5,5-trimethyl-2-(phenylmethyl)-	77.2	11.0	382.0	5.73	2
661	30652	1,3-Dioxolane, 2-(9-decenyl)-4,5-dimethyl-	17.3	31.3	87.0	.65	0
662	36711	1,3-Dioxolane, 2-ethyl-4-hexyl-2-methyl-	8.5	5.7	14.0	1.60	1
663	36703	1,3-Dioxolane, 4-hexyl-2,2-dimethyl-	5.5	4.2	5.0	.90	0
664	5026	1,3-Dioxolane, 2-hexyl-4-methyl-	7.3	4.3	8.3	1.29	1
665	31892	1,3-Dioxolane, 2-[2-(4-methoxyphenyl)ethenyl]-2,4-dimethyl-	13.0	7.0	119.6	3.75	1
666	31112	1,3-Dioxolane, 2-(6-methyl-3-cyclohexenyl-yl)-	21.2	71.0	209.0	.49	0
667	37203	1,3-Dioxolane, 4-methyl-2-pentyl-	2.0	5.3	4.3	.48	0
668	31826	1,3-Dioxolane, 4-methyl-2-(1-phenylethyl)-	9.0	8.3	9.0	1.30	1
669	32655	1,3-Dioxolane, 2-methyl-4-phenyl-2-(phenylmethyl)-	24.0	9.3	204.3	6.19	2
670	32657	1,3-Dioxolane, 2,4,5-trimethyl-2-(2-phenylethyl)-	6.0	7.0	119.6	2.50	1
671	36038	2,4-Dodecadien-1-ol, (E,E)-	1.3	4.0	5.3	.47	0
672	2185	Dodecanamide, N,N-dibutyl-	4.3	3.0	10.6	1.76	1
673	1019	Dodecanamide, N,N-diethyl-	12.3	10.3	16.6	1.50	1
674	26661 -X	Dodecanamide, N,N-dimethyl- (95%), mixture with related amides(5%)	3.2	2.2	8.2	1.32	1
675	35237	Dodecanamide, N,N-dipropyl-	1.6	1.0	4.3	1.00	1

Table 1.--Effectiveness of chemicals tested as attractants for the Caribbean fruit fly--Continued

Item	AI3 No. (AI3-)	Test chemical	Mean No. flies attracted by--			Ratio (test/EtOH)	Class
			Test chemical	EtOH	AI3-19816		
676	32001	Dodecanoic acid, 3-methylbutyl ester	9.3	7.0	17.6	1.22	1
677	11124	Dodecanoic acid, 1,2,3-propanetriyl ester	9.0	4.6	5.3	4.06	1
678	35259	2-Dodecanol	10.3	12.6	14.0	1.28	1
679	35260	3-Dodecanol	1.0	1.6	4.6	.50	0
680	35261	4-Dodecanol	8.6	8.0	14.3	1.17	1
681	35262	5-Dodecanol	2.0	1.6	6.3	1.20	1
682	35263	6-Dodecanol	2.6	3.6	5.3	.68	0
683	8009	1-Dodecanone, 1-(1-piperidinyl)-	8.0	1.5	17.5	2.66	1
684	10519	1,6,10-Dodecatrien-3-ol, 3,7,11- trimethyl-	23.0	21.0	44.0	1.09	1
685	36048	2-Dodecen-1-ol, (E)-	8.6	10.6	11.0	1.21	1
686	36049	2-Dodecen-1-ol, acetate, (E)-	26.0	9.0	13.6	2.81	1
687	36485	1-Eicosanol	4.0	6.6	10.0	.70	0
688	11244	Ethanedioic acid, bis(1-methylethyl) ester	2.0	7.6	12.0	.17	0
689	11266	Ethanedioic acid, bis(2-methylpropyl) ester	2.0	3.6	5.0	.58	0
690	6013	Ethanedioic acid, bis(3-methylpropyl) ester	6.6	3.0	4.3	2.47	1
691	6011	Ethanedioic acid, dibutyl ester	1.6	4.3	4.6	.38	0
692	15352	Ethanedioic acid, diethyl ester	1.3	7.3	26.0	.48	0
693	419	Ethanedioic acid, dipentyl ester	5.0	4.0	1.0	1.25	1
694	32501	Ethanedioic acid, dipropyl ester	5.3	3.0	8.0	1.44	1
695	8223	1,2-Ethanediol, diacetate	8.6	7.0	26.0	1.25	1
696	3886	Ethanol, 2-(2-chlorophenoxy)-	30.3	24.3	61.3	1.42	1
697	2225	Ethanol, 2-(4-chlorophenoxy)-	127.0	46.0	208.3	3.34	1
698	36460	Ethanol, 2-[(4-chlorophenyl)thio]-	19.0	24.3	61.3	1.12	1
699	33	Ethanol, 2-[4-(1,1- dimethylethyl)phenoxy]-	19.3	24.3	61.3	1.09	1
700	31451	Ethanol, 2-(ethylthio)-, acetate	18.0	20.2	6.0	1.04	1
701	31452	Ethanol, 2-(ethylthio)-, propanoate	19.8	17.0	9.5	1.91	1
702	17878	Ethanol, 2-(4-methoxyphenoxy)-	23.3	24.3	61.3	1.38	1
703	9180	Ethanol, 2-(3-methylphenoxy)-	234.6	195.6	414.0	1.48	1
704	36461	Ethanol, 2-[(4-methylphenyl)thio]-	35.0	24.3	61.3	1.45	1
705	752	Ethanol, 2-phenoxy-	130.3	23.1	69.6	6.70	2
706	36714	Ethanol, 2-[(1,7,7- trimethylbicyclo[2.2.1]hept-2-yl)oxy]-	13.5	11.0	19.0	1.20	1
707	10505	Ethanone, 1-(2,4-dimethoxyphenyl)-	14.3	4.0	3.6	4.83	1
708	11163	Ethanone, 1-(3,4-dimethoxyphenyl)-	15.6	10.0	26.0	1.32	1
709	23586	Ethanone, 1-(2-furanyl)-	18.6	6.0	13.3	3.47	1
710	5503	Ethanone, 1-(2-methoxyphenyl)-	9.6	10.6	---	1.26	1
711	26011	Ethanone, 1-(3-methoxyphenyl)-	1.6	4.0	---	.41	0
712	18809	Formamide, N,N-bis(1-methylethyl)-	12.3	5.0	11.6	2.70	1
713	18810	Formamide, N,N-dibutyl-	2.6	5.6	20.0	.44	0
714	11534	Formamide, N,N-diethyl-	3.5	7.5	22.5	.68	0
715	18812	Formamide, N,N-dipentyl-	6.0	5.0	12.0	.94	0
716	18808	Formamide, N,N-dipropyl-	3.0	1.3	6.0	2.66	1
717	36591	2-Furancarboxaldehyde, 5-methyl-	6.0	4.3	7.6	1.69	1
718	36018	2-Furancarboxylic acid, hexyl ester	2.6	3.0	5.3	.88	0
719	36016	2-Furancarboxylic acid, 2-phenylethyl ester	61.0	12.6	34.6	3.88	1
720	36008	2-Furancarboxylic acid, 2-propenyl ester	2.6	3.6	5.6	.61	0
721	23590	2-Furancarboxylic acid, propyl ester	10.6	6.0	8.0	3.64	1

Table 1.--Effectiveness of chemicals tested as attractants for the Caribbean fruit fly--Continued

Item	AI3 No. (AI3-)	Test chemical	Mean No. flies attracted by--			Ratio (test/EtOH)	Class
			Test chemical	EtOH	AI3-19816		
722	11016	3-Furanmethanol, acetate	5.5	17.5	29.5	0.47	0
723	21209	2-Furanmethanol, tetrahydro-, acetate	8.0	5.6	9.0	1.00	1
724	15415	2-Furanmethanol, tetrahydro-, propanoate	2.2	5.5	5.2	.43	0
725	36129	2(3H)-Furanone, dihydro-5-propyl-	4.0	2.3	5.3	1.77	1
726	36655	2(3H)-Furanone, 5-ethylidihydro-	4.7	6.5	9.0	.62	0
727	36026	2(3H)-Furanone, 5-hexyldihydro-	12.3	9.6	14.6	1.14	1
728	1234	1-Heptadecanol	1.0	6.6	10.0	.12	0
729	37263	1,6-Heptadien-4-ol	8.0	10.3	11.3	.54	0
730	34298	2,6-Heptadienenitrile, 3-ethyl-4-methyl-	2.0	6.6	17.0	.75	0
731	34297	2,6-Heptadienenitrile, 2-(2-propenyl)-	1.6	5.0	5.0	.34	0
732	25071	3,5-Heptadien-2-one, 6-methyl-	1.5	7.0	8.5	.29	0
733	35701	Heptanamide, N,N-bis(1-methylethyl)-	7.6	8.0	11.6	1.28	1
734	35707	Heptanamide, N,N-bis(2-methylpropyl)-	3.3	10.0	14.3	.31	0
735	35460	Heptanamide, N,N-dibutyl-	11.3	2.0	11.3	4.22	1
736	35459	Heptanamide, N,N-diethyl-	4.5	3.8	4.1	.75	0
737	37486	Heptanamide, N,N-dimethyl-	.3	5.6	3.6	.02	0
738	35711	Heptanamide, N,N-dipentyl-	5.3	7.3	18.0	2.21	1
739	35509	Heptanamide, N,N-dipropyl-	3.3	2.0	5.6	1.41	1
740	36020	Heptane, 1,1-dimethoxy-	2.6	4.0	6.3	.75	0
741	12191	1,3-Heptanediol, 2-propyl-	12.6	8.6	12.6	2.49	1
742	33662	1,7-Heptanediol, diacetate	17.0	5.3	19.0	3.48	1
743	33658	1,7-Heptanediol, diformate	54.5	11.8	21.1	8.25	2
744	33668	1,7-Heptanediol, dipropanoate	9.3	5.6	19.3	1.85	1
745	30741	Heptanoic acid, 2-bromoethyl ester	34.0	4.8	19.8	20.41	2
746	30740	Heptanoic acid, 2-chloroethyl ester	4.6	3.6	3.3	1.41	1
747	36012	Heptanoic acid, octyl ester	3.6	7.0	14.3	.36	0
748	30748	Heptanoic acid, 2-phenylethyl ester	17.0	9.6	165.0	2.35	1
749	36009	Heptanoic acid, 2-propenyl ester	6.6	9.0	13.0	.77	0
750	37648	Heptanoic acid, 2-bromo-, ethyl ester	2.0	5.3	5.6	.53	0
751	36604	Heptanoic acid, 7-bromo-, ethyl ester	192.0	7.3	12.3	19.40	2
752	11263	2-Heptanol	2.6	4.6	9.3	.36	0
753	37268	2-Heptanol, 2-methyl-	21.0	11.5	16.2	1.53	1
754	28631	3-Heptanol, 2,4-dimethyl-	62.3	32.3	237.0	1.83	1
755	1230	2-Heptanone	7.3	12.6	15.3	1.08	1
756	28621	1-Hepten-3-ol	66.3	36.3	223.6	2.05	1
757	28622	1-Hepten-4-ol	33.3	69.6	103.6	.89	0
758	36042	2-Hepten-1-ol, (E)-	2.3	5.0	7.3	.55	0
759	28623	2-Hepten-4-ol	40.6	26.0	115.3	1.97	1
760	36181	6-Hepten-1-ol, 2-methyl-	2.6	5.3	3.6	1.19	1
761	30541	5-Hepten-2-one, 6-chloro-	4.1	6.3	17.6	.52	0
762	25072	5-Hepten-2-one, 6-phenyl-	32.2	11.0	---	3.24	1
763	37266	6-Hepten-4-yn-2-ol, 6-methyl-	6.6	2.3	3.0	6.08	2
764	37267	6-Hepten-4-yn-3-ol, 6-methyl-	1.3	3.3	2.3	.53	0
765	37262	1-Heptyn-3-ol	8.3	11.3	18.3	.77	0
766	37260	2-Heptyn-1-ol	5.5	9.0	13.7	.51	0
767	37261	3-Heptyn-1-ol	.6	2.3	4.6	.13	0
768	37217	4-Heptyn-2-ol	1.3	5.0	3.0	1.02	1
769	37218	5-Heptyn-3-ol	2.0	5.6	7.0	.43	0
770	7065	2-Heptynoic acid, 3-butyryl ester	3.0	3.6	12.0	.72	0
771	33388	2-Heptynoic acid, hexyl ester	8.5	8.5	13.5	4.55	1
772	7047	2-Heptynoic acid, 3-methylbutyl ester	2.0	.5	8.5	2.00	1
773	33392	2-Heptynoic acid, 1-methylethyl ester	3.3	2.0	13.3	1.55	1
774	33390	2-Heptynoic acid, 1-methylpropyl ester	12.5	7.7	12.2	1.79	1
775	33389	2-Heptynoic acid, 2-methylpropyl ester	10.3	13.0	15.0	2.07	1

Table 1.--Effectiveness of chemicals tested as attractants for the Caribbean fruit fly--Continued

Item	AI3 No. (AI3-)	Test chemical	Mean No. flies attracted by--			Ratio (test/EtOH)	Class
			Test chemical	EtOH	AI3-19816		
776	7046	2-Heptynoic acid, pentyl ester	5.0	1.5	14.0	3.33	1
777	7041	2-Heptynoic acid, propyl ester	6.0	13.0	15.0	.96	0
778	8006	Hexadecanamide, N,N-dibutyl-	2.3	1.3	8.3	1.50	1
779	35519	Hexadecanamide, N,N-diethyl-	6.3	3.3	7.0	1.59	1
780	37477	Hexadecanamide, N,N-dimethyl-	2.0	4.6	4.3	.72	0
781	35520	Hexadecanamide, N,N-dipropyl-	3.5	7.0	16.0	.35	0
782	6331	Hexadecanoic acid, ethyl ester	1.6	3.3	4.6	.44	0
783	35279	3-Hexadecanol	4.6	4.0	8.0	1.11	1
784	35281	8-Hexadecanol	3.6	5.0	3.0	2.73	1
785	31142	2,4-Hexadienal	1.0	1.5	14.0	.33	0
786	11732	2,4-Hexadienoic acid, ethyl ester	5.0	10.6	11.0	.35	0
787	82523	1,5-Hexadien-3-ol, 2,5-dimethyl-	8.3	7.0	8.3	2.11	1
788	30249	2,4-Hexadien-1-ol	10.5	18.0	16.7	1.10	1
789	32962	2,4-Hexadien-1-ol, acetate	9.0	16.5	19.2	.73	0
790	32961	2,4-Hexadien-1-ol, propanoate	13.2	16.5	19.2	1.13	1
791	36242	Hexanamide, N,N-bis(1-methylethyl)-	6.0	8.3	14.6	1.35	1
792	35458	Hexanamide, N,N-dibutyl-	9.6	15.0	28.0	.86	0
793	22214	Hexanamide, N,N-diethyl-	4.1	4.6	6.1	.57	0
794	36607	Hexanamide, N,N-dimethyl-	3.0	4.0	3.6	.62	0
795	22215	Hexanamide, N,N-dipropyl-	8.0	4.0	9.6	2.03	1
796	36019	Hexane, 1,1-dimethoxy-	2.3	8.0	11.6	.19	0
797	6066	Hexanedioic acid, bis(1-methylethyl) ester	5.0	4.6	10.6	.94	0
798	671	Hexanedioic acid, dibutyl ester	11.0	4.3	9.6	3.02	1
799	342	Hexanedioic acid, diethyl ester	5.5	3.5	3.0	1.66	1
800	668	Hexanedioic acid, dimethyl ester	9.3	8.6	24.3	1.25	1
801	6052	Hexanedioic acid, dipropyl ester	5.3	2.3	9.3	1.86	1
802	30487	1,3-Hexanediol, 2-ethyl-, diformate	7.3	4.3	11.0	1.41	1
803	6316	1,6-Hexanediol, diacetate	21.6	13.0	14.6	1.58	1
804	6380	1,6-Hexanediol, diformate	16.0	7.6	16.0	2.04	1
805	6319	1,6-Hexanediol, dipropanoate	3.3	4.3	6.0	.80	0
806	18162	2,5-Hexanediol, diacetate	3.0	2.3	5.0	1.46	1
807	19698	2,5-Hexanediol, diformate	11.3	8.3	14.6	1.72	1
808	33667	2,5-Hexanediol, dipropanoate	6.0	5.0	10.6	1.06	1
809	35989	2,3-Hexanedione	7.0	3.6	4.3	2.25	1
810	28396	Hexanenitrile	609.3	246.6	564.0	8.85	2
811	6129	Hexanoic acid, butyl ester	1.3	5.0	5.3	1.03	1
812	20526	Hexanoic acid, (4-chlorophenyl)methyl ester	7.6	3.6	25.3	3.34	1
813	6044	Hexanoic acid, cyclohexyl ester	4.0	8.6	18.6	.52	0
814	22081	Hexanoic acid, 2-cyclohexylethyl ester	21.0	18.6	36.6	.88	0
815	36089	Hexanoic acid, 3-cyclohexylpropyl ester	31.3	18.6	36.6	2.37	1
816	21397	Hexanoic acid, 2,3-dibromopropyl ester	48.3	23.0	80.0	1.77	1
817	36014	Hexanoic acid, 3,7-dimethyl-2,6- octadienyl ester, (E)-	16.6	8.0	17.0	3.42	1
818	6102	Hexanoic acid, 1,2-ethanediyl ester	19.6	17.3	34.3	1.07	1
819	31118	Hexanoic acid, heptyl ester	2.3	3.0	3.6	1.17	1
820	35968	Hexanoic acid, 2-hexenyl ester, (E)-	4.3	4.6	5.3	1.27	1
821	35959	Hexanoic acid, 2-hexenyl ester, (Z)-	2.3	5.3	4.6	.79	0
822	6035	Hexanoic acid, hexyl ester	69.0	15.6	90.5	2.65	1
823	6104	Hexanoic acid, (4-methoxyphenyl)methyl ester	3.0	4.0	1.6	1.03	1
824	22073	Hexanoic acid, 2-phenylethyl ester	10.6	5.6	124.6	1.54	1
825	18699	Hexanoic acid, 3-phenylpropyl ester	113.8	10.0	29.0	21.42	2

Table 1.--Effectiveness of chemicals tested as attractants for the Caribbean fruit fly--Continued

Item	AI3 No. (AI3-)	Test chemical	Mean No. flies attracted by--			Ratio (test/EtOH)	Class
			Test chemical	EtOH	AI3-19816		
826	21391	Hexanoic acid, 2-bromo-, 2-bromoethyl ester	24.6	22.6	77.3	0.95	0
827	21389	Hexanoic acid, 2-bromo-, 2-butoxyethyl ester	13.3	22.6	77.3	.56	0
828	21356	Hexanoic acid, 2-bromo-, butyl ester	3.0	11.6	23.3	.25	0
829	21376	Hexanoic acid, 2-bromo-, cyclohexyl ester	9.0	20.6	101.0	.47	0
830	21971	Hexanoic acid, 2-bromo-, 3-methoxybutyl ester	3.2	8.0	11.5	.60	0
831	21377	Hexanoic acid, 2-bromo-, 2-phenylethyl ester	19.3	20.0	155.8	1.10	1
832	21373	Hexanoic acid, 2-bromo-, phenylmethyl ester	15.3	14.6	65.3	.93	0
833	21392	Hexanoic acid, 2-bromo-, 3-phenylpropyl ester	98.1	15.9	72.4	8.12	2
834	21355	Hexanoic acid, 2-bromo-, propyl ester	1.0	10.0	12.6	.11	0
835	21390	Hexanoic acid, 2-bromo-, (tetrahydro-2-furanyl)methyl ester	28.6	16.0	87.6	1.42	1
836	36603	Hexanoic acid, 6-bromo-, ethyl ester	10.0	7.5	17.0	.97	0
837	33644	Hexanoic acid, 2-ethyl-, ethyl ester	2.5	3.5	12.5	.77	0
838	23183	Hexanoic acid, 2-ethyl-, hexyl ester	5.6	4.6	10.0	1.23	1
839	23184	Hexanoic acid, 2-ethyl-, 2-methoxyethyl ester	5.6	7.6	8.3	.89	0
840	33653	Hexanoic acid, 2-ethyl-, methyl ester	3.6	4.0	12.6	.84	0
841	33645	Hexanoic acid, 2-ethyl-, 3-methylbutyl ester	3.3	4.0	12.0	1.36	1
842	23181	Hexanoic acid, 2-ethyl-, 1-methylethyl ester	3.3	6.6	7.6	.49	0
843	33654	Hexanoic acid, 2-ethyl-, 2-methylpropyl ester	3.0	7.3	7.6	.56	0
844	23182	Hexanoic acid, 2-ethyl-, pentyl ester	5.3	10.0	22.6	.75	0
845	23178	Hexanoic acid, 2-ethyl-, propyl ester	1.6	4.3	10.0	1.03	1
846	24625	1-Hexanone, 1-(5-chloro-2-hydroxyphenyl)-3,5,5-trimethyl-	18.0	6.2	33.2	4.55	1
847	24765	2-Hexanone, 1-phenyl-	14.3	10.3	---	1.45	1
848	30929	3-Hexanone, 1-(4-methoxyphenyl)-5-methyl-	14.1	9.8	---	1.49	1
849	21936	3-Hexanone, 1-phenyl-	47.6	17.3	---	3.71	1
850	33378	2-Hexenoic acid, hexyl ester	11.3	9.3	12.6	.93	0
851	36590	2-Hexenoic acid, methyl ester	3.6	9.3	15.0	.41	0
852	34792	2-Hexen-1-ol, (E)-	2.6	7.0	8.3	1.18	1
853	34393	2-Hexen-1-ol, acetate, (E)-	6.6	7.6	12.6	.58	0
854	35969	2-Hexen-1-ol, propanoate, (E)-	2.0	5.3	3.6	.74	0
855	25091	3-Hexen-1-ol	4.2	15.5	17.0	.43	0
856	34794	3-Hexen-1-ol, (E)-	9.0	8.6	14.3	1.00	1
857	34392	3-Hexen-1-ol, acetate, (Z)-	18.5	15.5	17.0	1.37	1
858	35958	3-Hexen-1-ol, benzoate, (Z)-	4.0	6.0	8.6	1.00	1
859	28613	4-Hexen-3-ol	149.0	42.3	126.6	4.45	1
860	28624	4-Hexen-3-ol, 3-methyl-	31.3	29.3	258.0	1.18	1
861	28625	5-Hexen-3-ol, 3-methyl-	20.6	68.0	137.6	.82	0
862	16642	1-Hexen-3-one, 5-methyl-1-phenyl-	21.0	11.0	---	1.93	1
863	21919	1-Hexen-3-one, 1-phenyl-	41.0	17.3	---	3.85	1
864	21995	5-Hexen-2-one	37.0	34.4	---	1.29	1
865	37265	5-Hexen-3-yn-1-ol, 5-methyl-	4.0	4.3	1.3	.85	0

Table 1.--Effectiveness of chemicals tested as attractants for the Caribbean fruit fly--Continued

Item	AI3 No. (AI3-)	Test chemical	Mean No. flies attracted by--			Ratio (test/EtOH)	Class
			Test chemical	EtOH	AI3-19816		
866	37264	5-Hexen-3-yn-2-ol, 5-methyl-	4.0	2.3	2.3	1.83	1
867	37257	2-Hexyn-1-ol	1.0	5.3	9.0	.10	0
868	37258	3-Hexyn-1-ol	13.3	15.3	23.0	.64	0
869	37259	5-Hexyn-1-ol	8.6	10.0	10.3	.76	0
870	36521	1H-Inden-(?)-ol, 2,3-dihydro-, acetate	2.0	3.3	5.6	1.00	1
871	36519	1H-Inden-(?)-ol, 2,3-dihydro-, propanoate	18.6	10.6	27.6	1.45	1
872	36593	1H-3a,7-Methanoazulene, 6- ethoxyoctahydro-3,6,8,8-tetramethyl-	14.3	10.0	10.6	1.25	1
873	36599	1H-3a,7-Methanoazulene, octahydro- 3,6,8,8-tetramethyl-6-propoxy-	3.6	4.3	5.0	.88	0
874	36592	2H-2a,7-Methanoazuleno[5,6-b]oxirene, octahydro-3,6,6,7a-tetramethyl-	4.3	4.3	1.6	1.56	1
875	18285	Morpholine, 4-(1-oxodecyl)-	2.6	4.0	7.6	.77	0
876	30722	1-Naphthalenecarboxamide, N-[4- (phenylazo)phenyl]-	14.0	21.3	93.6	.72	0
877	36011	2,6-Nonadienal	43.3	11.3	29.0	5.05	2
878	36704 -X	2,6-Nonadiene, 1,1-diethoxy-, (E,Z)- (5% solution in alcohol)	1.0	2.6	5.6	1.00	1
879	36039	2,4-Nonadien-1-ol, (E,E)-	1.6	5.0	7.0	.30	0
880	36036	2,6-Nonadien-1-ol, (E,Z)-	2.6	5.0	7.0	.66	0
881	37205 -X	2,6-Nonadien-1-ol, acetate, (E,Z)- (5% solution in alcohol)	2.6	2.0	5.6	.80	0
882	35703	Nonanamide, N,N-bis(1-methylethyl)-	3.0	5.6	16.6	1.83	1
883	35709	Nonanamide, N,N-bis(2-methylpropyl)-	2.6	3.6	13.0	.95	0
884	35232	Nonanamide, N,N-dibutyl-	2.6	1.6	15.3	1.11	1
885	34698	Nonanamide, N,N-diethyl-	3.0	5.3	19.0	.47	0
886	37487	Nonanamide, N,N-dimethyl-	4.3	7.0	5.3	.73	0
887	35795	Nonanamide, N,N-dipentyl-	4.3	4.3	7.0	1.00	1
888	35231	Nonanamide, N,N-dipropyl-	1.0	2.6	6.3	.42	0
889	36124	Nonane, 1,1-dimethoxy-	4.6	3.6	8.3	1.85	1
890	36032	1,3-Nonanediol, monoacetate (mixed isomers)	21.0	13.0	34.3	.90	0
891	33241	Nonanenitrile	92.0	42.3	126.6	2.30	1
892	36013	Nonanoic acid, octyl ester	2.3	2.0	6.0	1.44	1
893	36010	Nonanoic acid, 2-propenyl ester	1.6	2.3	4.3	.33	0
894	37210	2-Nonanol	5.0	7.0	13.5	.65	0
895	37211	3-Nonanol	1.6	5.6	2.0	.69	0
896	37212	4-Nonanol	.3	2.0	5.3	.16	0
897	4244	5-Nonanol	3.0	8.5	9.0	.18	0
898	36553	1-Nonen-3-ol, acetate	2.3	2.0	5.0	1.33	1
899	36044	2-Nonen-1-ol, (E)-	4.6	8.6	10.3	.74	0
900	34276	2-Nonen-1-ol, acetate, (E)-	16.3	9.0	13.6	2.42	1
901	36004	2-Nonyne, 1,1-dimethoxy-	12.5	17.0	26.0	.85	0
902	37269	2-Nonyne-1-ol	2.0	2.3	1.6	1.03	1
903	37270	3-Nonyne-1-ol	.0	1.0	3.3	.00	0
904	37451	Octadecanamide, N,N-bis(1-methylethyl)-	4.6	6.6	6.3	.78	0
905	37449	Octadecanamide, N,N-diethyl-	3.3	5.6	8.3	.60	0
906	3295 -X	Octadecanamide, N,N-dimethyl-	13.0	9.0	7.0	1.44	1
907	37450	Octadecanamide, N,N-dipropyl-	3.3	3.0	4.0	2.33	1

Table 1.--Effectiveness of chemicals tested as attractants for the Caribbean fruit fly--Continued

Item	AI3 No. (AI3-)	Test chemical	Mean No. flies attracted by--			Ratio (test/EtOH)	Class
			Test chemical	EtOH	AI3-19816		
908	26663 -X	9-Octadecenamide, N,N-dimethyl-, (Z)- (80%) mixture with N,N-dimethyltetradec- anamide (5%), N,N-dimethylhexadecanamide (5%), N,N-dimethyloctadecanamide(5%) and N,N-dimethyl-9,12-octadecadienamide (5%)	62.0	41.1	124.1	2.11	1
909	36025	2,6-Octadiene, 1,1-dimethoxy-3,7- dimethyl-	8.3	7.3	5.6	2.30	1
910	738	1,6-Octadiene, 7-methyl-3-methylene-	7.6	15.6	54.8	.74	0
911	36183	1-Octanal, 7-methoxy-3,7-dimethyl-	46.6	11.0	20.6	4.21	1
912	35702	Octanamide, N,N-bis(1-methylethyl)-	5.6	8.3	13.6	1.03	1
913	35708	Octanamide, N,N-bis(2-methylpropyl)-	14.0	2.7	11.7	5.95	2
914	31072	Octanamide, N,N-dibutyl-	4.0	4.3	12.0	.63	0
915	31056	Octanamide, N,N-diethyl-	6.3	4.0	3.0	2.09	1
916	35712	Octanamide, N,N-dipentyl-	13.6	14.0	22.3	2.28	1
917	31066	Octanamide, N,N-dipropyl-	10.5	11.5	18.7	2.26	1
918	36021	Octane, 1,1-dimethoxy-	12.3	6.6	17.3	1.64	1
919	5998	1,7-Octanediol, 3,7-dimethyl-	11.6	11.3	19.6	1.32	1
920	33663	1,8-Octanediol, diacetate	3.3	2.6	7.0	1.30	1
921	33659	1,8-Octanediol, diformate	13.0	7.6	27.6	1.78	1
922	33669	1,8-Octanediol, dipropanoate	1.5	4.0	6.5	.58	0
923	31017	Octanoic acid, octyl ester	7.0	7.0	10.6	2.86	1
924	31010	Octanoic acid, 2-phenylethyl ester	7.0	8.3	61.0	1.14	1
925	36007	Octanoic acid, 2-propenyl ester	3.6	4.6	7.6	.76	0
926	37213	3-Octanol	1.6	3.3	8.3	.33	0
927	23412	3-Octanol, 3,6-dimethyl-	14.3	11.6	19.3	.84	0
928	30930	3-Octanol, 1-(4-methoxyphenyl)-	6.6	4.0	---	1.66	1
929	37214	4-Octanol	2.6	8.3	5.3	.25	0
930	737	2,4,6-Octatriene, 2,6-dimethyl-	1.0	1.6	2.3	.75	0
931	36708	2-Octenoic acid, ethyl ester	1.0	3.5	6.2	.21	0
932	30527	6-Octenoic acid, 7-chloro-3-oxo-, ethyl ester	4.6	12.6	47.6	.39	0
933	35987	1-Octen-1-ol, acetate	8.0	5.6	11.6	1.15	1
934	34394	1-Octen-3-ol, acetate	6.3	15.0	21.0	.32	0
935	36548	1-Octen-3-ol, propanoate	3.0	7.0	7.6	.40	0
936	36043	2-Octen-1-ol, (E)-	.6	3.6	6.3	.38	0
937	28628	2-Octen-4-ol	11.6	38.6	161.6	.36	0
938	24779	5-Octen-3-ol, 3,6-dimethyl-, acetate	8.5	1.7	10.0	6.66	2
939	26371	5-Octen-4-ol, 2,7-dimethyl-, acetate	16.4	11.4	18.8	1.96	1
940	2039	6-Octen-1-ol, 3-7-dimethyl-, acetate	1.0	.0	5.0	1.00	1
941	24239	6-Octen-1-ol, 3,7-dimethyl-, formate	11.3	11.0	14.0	3.87	1
942	13180	4-Octyne-3,6-diol, 3,6-bis(1,1- dimethylethyl)-	61.0	21.3	93.6	4.43	1
943	37271	7-Octen-5-yn-3-ol, 7-methyl-	3.3	3.0	1.3	.70	0
944	82521	1-Octyn-3-ol	3.0	6.0	9.5	.37	0
945	7075	2-Octyn-1-ol	1.0	5.6	8.6	.20	0
946	7044	3-Octyn-1-ol	.6	3.6	1.3	.66	0
947	37215	4-Octyn-2-ol	3.3	2.3	5.6	2.33	1
948	26044	7-Oxabicyclo[4.1.0]heptane, 1-methyl-4- (2-methyl-2-oxiranyl)-	28.0	10.3	26.3	2.03	1
949	578	2-Oxabicyclo[2.2.2]octane, 1,3,3- trimethyl-	5.2	6.7	10.2	.51	0
950	37208	Oxacycloheptadecan-2-one	8.0	12.0	28.0	.66	0
951	33856	1-Oxaspiro[2.5]octane-2-carboxylic acid, propyl ester	46.5	18.1	---	3.21	1

Table 1.--Effectiveness of chemicals tested as attractants for the Caribbean fruit fly--Continued

Item	AI3 No. (AI3-)	Test chemical	Mean No. flies attracted by--			Ratio (test/EtOH)	Class
			Test chemical	EtOH	AI3-19816		
952	33934	1-Oxaspiro[2.5]octane-2-carboxylic acid, 6-(1,1-dimethylethyl)-2-methyl-, ethyl ester	114.4	11.7	3.5	14.97	2
953	36520	2-Oxepanone	6.6	5.6	7.6	1.14	1
954	70231	Oxirane, [(hexyloxy)methyl]-	62.5	37.0	79.1	2.21	1
955	70230	Oxirane, [(4-methylphenoxy)methyl]-	68.8	23.8	184.3	2.27	1
956	13109	Oxirane, (phenoxyethyl)-	6.6	5.3	18.3	1.32	1
957	7377	Oxiranecarboxylic acid, 3-(4- chlorophenyl)-3-methyl-, methyl ester	12.3	5.3	---	3.26	1
958	7384	Oxiranecarboxylic acid, 3-(4- chlorophenyl)-3-methyl, propyl ester	114.7	71.0	209.0	1.79	1
959	36017	Oxiranecarboxylic acid, 3-cyclohexyl-, ethyl ester	22.6	15.0	39.6	1.30	1
960	7347	Oxiranecarboxylic acid, 3-ethyl-3- phenyl-, ethyl ester	132.2	71.0	209.0	2.12	1
961	7188	Oxiranecarboxylic acid, 3-ethyl-3- phenyl-, 1-methylethyl ester	22.8	7.4	---	11.56	2
962	33851	Oxiranecarboxylic acid, 3-methyl-3- (4-methylphenyl)-, propyl ester	260.5	71.0	209.0	3.76	1
963	50540	Oxiranemethanol	4.0	3.0	6.6	1.11	1
964	33881	1-Pentadecanol	2.0	4.3	3.6	.48	0
965	32399	1,4-Pentadien-3-one, 1,5-bis(3- hydroxyphenyl)-	13.5	11.5	21.0	.61	0
966	896	1,4-Pentadien-3-one, 1,5-diphenyl-	13.0	11.5	21.0	1.54	1
967	3762	2,4-Pentadien-1-one, 1,5-diphenyl-	6.5	11.5	21.0	.29	0
968	35706	Pentanamide, N,N-bis(2-methylpropyl)-	4.3	4.0	16.0	.73	0
969	35511	Pentanamide, N,N-dibutyl-	7.6	4.6	12.0	1.90	1
970	35464	Pentanamide, N,N-diethyl-	2.6	6.5	8.5	.41	0
971	36605	Pentanamide, N,N-dimethyl-	6.0	9.0	14.3	.35	0
972	35710	Pentanamide, N,N-dipentyl-	4.0	5.0	8.0	.78	0
973	6041	Pentanedioic acid, bis(1-methylethyl) ester	3.0	4.0	5.3	.61	0
974	6024	Pentanedioic acid, bis(2-methylpropyl) ester	4.0	5.0	9.6	.92	0
975	6043	Pentanedioic acid, dibutyl ester	5.6	7.0	10.0	.99	0
976	6007	Pentanedioic acid, diethyl ester	2.3	4.6	7.6	.58	0
977	6026	Pentanedioic acid, dimethyl ester	2.0	3.3	4.3	1.21	1
978	6023	Pentanedioic acid, dipropyl ester	8.6	2.6	14.3	7.30	2
979	30492	1,3-Pentanediol, 2,2,4-trimethyl-, diformate	15.0	12.6	23.6	.74	0
980	6263	1,5-Pentanediol, diacetate	14.3	11.6	15.6	.75	0
981	6407	1,5-Pentanediol, diformate	6.0	1.3	6.6	3.55	1
982	6154	1,5-Pentanediol, dipropionate	29.0	5.3	17.0	4.16	1
983	33661	2,4-Pentanediol, diacetate	7.0	4.6	16.6	1.52	1
984	33657	2,4-Pentanediol, diformate	4.0	2.3	10.0	1.47	1
985	33666	2,4-Pentanediol, dipropionate	6.3	10.3	15.0	1.82	1
986	32415	2,4-Pentanediol, 2-methyl-, diacetate	10.3	4.3	10.3	2.83	1
987	32414	2,4-Pentanediol, 2-methyl-, diformate	10.6	9.3	27.3	.85	0
988	30514	Pentanoic acid, 2-bromoethyl ester	2.6	6.0	11.0	.60	0
989	6323	Pentanoic acid, 1,4-butanediyl ester	3.3	6.3	8.3	.55	0
990	30026	Pentanoic acid, 2-chloroethyl ester	22.0	15.0	63.6	1.11	1
991	30587	Pentanoic acid, 2-(2-chlorophenoxy)-1- methylethyl ester	5.6	9.3	12.6	1.32	1
992	36087	Pentanoic acid, 2-cyclohexylethyl ester	15.0	18.6	36.6	1.03	1

Table 1.--Effectiveness of chemicals tested as attractants for the Caribbean fruit fly--Continued

Item	AI3 No. (AI3-)	Test chemical	Mean No. flies attracted by--			Ratio (test/EtOH)	Class
			Test chemical	EtOH	AI3-19816		
993	36088	Pentanoic acid, 3-cyclohexylpropyl ester	7.6	18.6	36.6	0.58	0
994	33680	Pentanoic acid, 1,2-dimethyl-1,2-ethanediyl ester	4.3	2.0	16.0	1.94	1
995	33678	Pentanoic acid, 1,2-ethanediyl ester	1.6	4.3	15.0	.55	0
996	6346	Pentanoic acid, 1-methyl-1,2-ethanediyl ester	4.0	4.3	18.0	.81	0
997	33679	Pentanoic acid, 1-methyl-1,3-propanediyl ester	2.6	6.0	11.3	.44	0
998	2945	Pentanoic acid, 2-phenylethyl ester	2.0	8.3	35.0	.16	0
999	30580	Pentanoic acid, 3-phenylpropyl ester	89.6	8.8	277.8	9.52	2
1000	6401	Pentanoic acid, 1,3-propanediyl ester	3.6	6.0	22.0	.48	0
1001	37649	Pentanoic acid, 5-bromo-, ethyl ester	2.0	5.3	5.6	.53	0
1002	31861	Pentanoic acid, 2-ethyl-4-methyl-, 2-chloroethyl ester	8.0	7.0	6.3	1.50	1
1003	31864	Pentanoic acid, 2-ethyl-4-methyl-, 2-methoxyethyl ester	12.6	8.0	15.0	3.15	1
1004	31866	Pentanoic acid, 2-ethyl-4-methyl-, 2-phenylethyl ester	5.6	9.3	158.3	1.28	1
1005	30027	Pentanoic acid, 2-methyl-, 2-bromoethyl ester	39.6	13.0	41.3	5.57	2
1006	30074	Pentanoic acid, 2-methyl-, 2-phenylethyl ester	12.0	5.3	135.3	2.80	1
1007	30076	Pentanoic acid, 2-methyl-, 3-phenylpropyl ester	47.3	10.9	132.6	4.43	1
1008	34565	Pentanoic acid, 4-methyl-, 2-phenylethyl ester	8.3	8.3	227.0	1.02	1
1009	518	Pentanoic acid, 4-oxo-, butyl ester	6.5	17.0	26.0	.20	0
1010	36595	Pentanoic acid, 4-oxo-, 3-methylbutyl ester	4.0	3.6	5.3	1.18	1
1011	31914	Pentanoic acid, 4-oxo-, 1-methylethyl ester	3.0	11.0	---	.42	0
1012	31915	Pentanoic acid, 4-oxo-, 2-methylpropyl ester	3.0	11.0	---	.48	0
1013	31913	Pentanoic acid, 4-oxo-, propyl ester	7.6	11.0	---	1.19	1
1014	21997	1-Pentanol, 2-methyl-	5.0	3.3	3.6	1.44	1
1015	26041	1-Pentanol, 2,2,4-trimethyl-	8.6	10.0	17.0	.64	0
1016	37255	2-Pentanol	24.0	13.3	19.6	1.75	1
1017	32118	2-Pentanone	12.3	12.6	---	1.04	1
1018	8030	2-Pentanone, 5-hydroxy-	87.3	195.6	414.0	.56	0
1019	11065	2-Pentanone, 4-methyl-1-phenyl-	20.0	6.3	---	3.47	1
1020	24761	2-Pentanone, 1-phenyl-	31.3	10.3	---	2.92	1
1021	32388	3-Pentanone, 1-(4-methoxyphenyl)-4-methyl-	9.1	6.5	---	1.32	1
1022	21915	3-Pentanone, 1-phenyl-	21.3	8.0	---	3.42	1
1023	34299	3-Pentenitrile, 3-ethyl-2-(2-propenyl)-	7.0	3.6	14.0	1.29	1
1024	33454	4-Pentenitrile, 2-ethenyl-2-(2-propenyl)-	129.3	243.6	444.0	2.18	1
1025	33456	4-Pentenitrile, 2-[2-(2-propenyl)cyclohexylidene]-	25.0	26.6	250.0	.84	0
1026	37200	4-Pentenoic acid, ethyl ester	4.6	2.0	6.6	1.33	1
1027	30532	4-Pentenoic acid, 2-acetyl-5-chloro-, ethyl ester	9.0	7.3	11.6	2.10	1
1028	28606	1-Penten-3-ol	44.3	37.0	228.3	1.06	1

Table 1.--Effectiveness of chemicals tested as attractants for the Caribbean fruit fly--Continued

Item	AI3 No. (AI3-)	Test chemical	Mean No. flies attracted by--			Ratio (test/EtOH)	Class
			Test chemical	EtOH	AI3-19816		
1029	28615	1-Penten-3-ol, 2-methyl-	72.0	31.3	336.0	3.12	1
1030	25136	1-Penten-3-ol, 3-methyl-	3.6	6.6	8.3	.45	0
1031	28616	1-Penten-3-ol, 4-methyl-	17.6	21.6	73.6	1.00	1
1032	36182	3-Penten-1-ol, 3-methyl-	4.3	9.3	9.3	.60	0
1033	28607	3-Penten-2-ol	326.0	50.1	75.3	7.07	2
1034	28617	3-Penten-2-ol, 4-methyl-	201.0	26.8	72.8	8.43	2
1035	28618	4-Penten-2-ol, 2-methyl-	188.0	26.5	107.5	5.59	2
1036	21250	1-Penten-3-one, 1-(2-methoxyphenyl)-	10.0	3.3	---	4.73	1
1037	21917	1-Penten-3-one, 4-methyl-1-phenyl-	23.3	17.3	---	2.29	1
1038	36128	1-Penten-3-one, 2-methyl-1-(2,6,6-trimethyl-2-cyclohexen-1-yn)-	7.3	9.6	8.3	.89	0
1039	28604	1-Pentyn-3-ol	104.0	255.3	533.3	.36	0
1040	23405	1-Pentyn-3-ol, 3-ethyl-	153.3	202.3	556.3	2.10	1
1041	37254	2-Pentyn-1-ol	1.5	8.5	9.0	.09	0
1042	37256	3-Pentyn-1-ol	7.3	2.3	6.0	3.47	1
1043	37253	4-Pentyn-1-ol	54.3	12.3	14.0	2.17	1
1044	20018	Phenol, 2-bromo-4-(1,1-dimethylethyl)-, propanoate	19.3	8.6	39.6	2.32	1
1045	9060	Phenol, 2-chloro-	5.0	9.6	35.4	.79	0
1046	19422	Phenol, 4-chloro-	7.0	10.6	34.6	.79	0
1047	24559	Phenol, 4-chloro-2-(1,1-dimethylethyl)-5-(1-methylethyl)-	23.5	13.2	50.0	1.67	1
1048	37025	Piperidine, 1-(bicyclo[2.2.1]hept-5-en-2-ylcarbonyl)-	2.6	4.3	4.3	.61	0
1049	37028	Piperidine, 1-(bicyclo[2.2.1]hept-5-en-2-ylcarbonyl)-3-methyl-	6.0	5.6	10.6	1.83	1
1050	35765	Piperidine, 1-(3-cyclohexen-1-ylcarbonyl)-	16.6	32.6	127.6	.36	0
1051	36156	Piperidine, 1-(2-methyl-1-oxo-2-butenyl)-, (E)-	2.6	4.6	3.6	.63	0
1052	36170	Piperidine, 1-(3-methyl-1-oxo-2-butenyl)-	7.6	5.6	20.3	1.11	1
1053	35468	Piperidine, 1-(1-oxobutyl)-	6.0	4.0	11.6	2.10	1
1054	33511	Piperidine, 1-(1-oxodecyl)-	3.3	3.3	5.3	1.33	1
1055	33510	Piperidine, 1-(1-oxoheptyl)-	9.0	3.6	7.6	1.85	1
1056	32850	Piperidine, 1-(1-oxohexadecyl)-	11.6	14.0	23.6	2.56	1
1057	32848	Piperidine, 1-(1-oxohexyl)-	17.3	14.3	21.0	2.69	1
1058	32827	Piperidine, 1-(1-oxononyl)-	13.3	3.3	6.6	3.85	1
1059	32829	Piperidine, 1-(1-oxo-9-octadecenyl)-	3.6	4.0	3.6	.85	0
1060	37390	Piperidine, 1-(1-oxooctadecyl)-	2.0	3.0	3.6	.71	0
1061	32826	Piperidine, 1-(1-oxooctyl)-	12.3	6.3	4.6	1.54	1
1062	35462	Piperidine, 1-(1-oxopentyl)-	3.3	4.6	4.0	1.99	1
1063	36633	Piperidine, 1-(1-oxopropyl)-	8.7	4.7	16.2	4.31	1
1064	32828	Piperidine, 1-(1-oxotetradecyl)-	1.0	5.5	7.5	.19	0
1065	33512	Piperidine, 1-(1-oxoundecyl)-	10.3	2.6	11.3	3.41	1
1066	15234	1-Piperidineacetoneitrile	34.3	48.0	313.0	.73	0
1067	15238	1-Piperidinecarboxaldehyde	7.3	15.0	23.6	.17	0
1068	11737	1-Piperidineethanol	8.0	24.3	61.3	.50	0
1069	36432	2-Piperidineethanol	16.3	35.3	146.0	.54	0
1070	25036	Propanal, 2,2,3-trichloro-	5.6	13.3	22.6	.67	0
1071	2833	Propanamide, N,N-diethyl-	10.3	10.3	29.0	1.20	1
1072	36614	Propanamide, N,N-dimethyl-	6.3	4.0	11.6	1.23	1
1073	2837	Propanamide, N,N-dipropyl-	3.7	4.2	12.0	.55	0
1074	30754	Propane, 2-chloro-2-methyl-	24.3	8.6	35.3	3.37	1

Table 1.--Effectiveness of chemicals tested as attractants for the Caribbean fruit fly--Continued

Item	AI3 No. (AI3-)	Test chemical	Mean No. flies attracted by--			Ratio (test/EtOH)	Class
			Test chemical	EtOH	AI3-19816		
1075	30339	Propane, 2,2,3-trichloro-1,1-diethoxy-	35.0	8.3	20.6	4.68	1
1076	1967	Propanedioic acid, bis(3-methylbutyl) ester	4.6	4.6	8.3	.63	0
1077	7236	Propanedioic acid, bis(1-methylethyl) ester	7.3	10.3	15.0	2.18	1
1078	33814	Propanedioic acid, bis(2-methylpropyl) ester	4.6	6.0	22.0	.89	0
1079	2115	Propanedioic acid, dibutyl ester	9.3	13.6	15.3	.52	0
1080	656	Propanedioic acid, diethyl ester	4.5	16.5	15.5	.69	0
1081	33813	Propanedioic acid, dipentyl ester	11.0	9.6	28.3	1.52	1
1082	7235	Propanedioic acid, dipropyl ester	4.6	3.6	9.6	1.55	1
1083	10041	Propanedioic acid, 1,2-ethanediyl ester	4.0	4.3	10.6	.92	0
1084	6356	Propanedioic acid, butyl-, diethyl ester	4.3	6.0	8.3	.69	0
1085	5627	Propanedioic acid, (2-methylpropyl)-, diethyl ester	3.0	6.0	7.3	.41	0
1086	28581	1,2-Propanediol, dipropionate	2.0	4.0	5.0	.47	0
1087	7820	1,3-Propanediol, diacetate	3.3	2.6	9.6	2.38	1
1088	6384	1,3-Propanediol, dipropionate	10.6	4.0	3.3	2.89	1
1089	30490	1,3-Propanediol, 2,2-dimethyl-, diformate	7.6	5.0	11.0	1.95	1
1090	33235	Propanenitrile, 3-(cyclohexylamino)-	51.6	14.0	83.0	3.30	1
1091	659	1,2,3-Propanetricarboxylic acid, 2-hydroxy-, triethyl ester	1.0	3.3	5.6	.72	0
1092	21239	Propanoic acid, 2-bromo-, 2-(2- butoxyethoxy)ethyl ester	70.0	7.5	58.2	11.55	2
1093	21238	Propanoic acid, 2-bromo-, 2-butoxyethyl ester	93.0	14.6	104.3	9.30	2
1094	21241	Propanoic acid, 2-bromo-, 2-chloroethyl ester	11.3	15.0	64.6	.88	0
1095	21307	Propanoic acid, 2-bromo-, 2-(2- chlorophenoxy)-1-methylethyl ester	12.0	7.0	10.0	2.38	1
1096	21248	Propanoic acid, 2-bromo-, 2-(4- chlorophenyl)ethyl ester	131.0	16.0	80.3	5.42	2
1097	21199	Propanoic acid, 2-bromo-, cyclohexyl ester	4.0	8.6	61.3	.48	0
1098	21236	Propanoic acid, 2-bromo-, cyclopentyl ester	15.0	13.3	82.0	2.76	1
1099	21395	Propanoic acid, 2-bromo-, 2,3- dibromopropyl ester	83.0	20.0	77.3	4.97	1
1100	21299	Propanoic acid, 2-bromo-, 2-[4-(1,1- dimethylethyl)phenoxy]ethyl ester	20.3	7.0	10.0	2.74	1
1101	21277	Propanoic acid, 2-bromo-, 2-ethylbutyl ester	32.0	16.7	90.5	2.16	1
1102	21306	Propanoic acid, 2-bromo-, 4-ethyl-1- methyloctyl ester	11.0	7.0	10.0	2.27	1
1103	21237	Propanoic acid, 2-bromo-, 1-ethylpentyl ester	41.0	12.0	53.1	7.48	2
1104	21207	Propanoic acid, 2-bromo-, hexyl ester	21.0	16.0	80.3	1.41	1
1105	21927	Propanoic acid, 2-bromo-, 3-methoxybutyl ester	13.6	12.0	6.0	1.71	1
1106	21208	Propanoic acid, 2-bromo-, 2-methoxyethyl ester	49.6	14.6	104.3	5.18	2
1107	21294	Propanoic acid, 2-bromo-, 2-methoxy-1- methylethyl ester	11.6	3.6	31.6	3.70	1

Table 1.--Effectiveness of chemicals tested as attractants for the Caribbean fruit fly--Continued

Item	AI3 No. (AI3-)	Test chemical	Mean No. flies attracted by--			Ratio (test/EtOH)	Class
			Test chemical	EtOH	AI3-19816		
1108	21260	Propanoic acid, 2-bromo-, 4-methylcyclohexyl ester	2.0	3.6	31.6	1.08	1
1109	21278	Propanoic acid, 2-bromo-, 2-(1-methylpropyl)cyclohexyl ester	32.3	14.3	46.3	2.40	1
1110	21287	Propanoic acid, 2-bromo-, 4-(1-methylpropyl)cyclohexyl ester	21.3	15.3	48.0	2.08	1
1111	21305	Propanoic acid, 2-bromo-, 1,5-pentanedyl ester	29.6	8.0	20.0	3.81	1
1112	21240	Propanoic acid, 2-bromo-, 2-phenoxyethyl ester	192.6	12.0	53.1	34.99	2
1113	18703	Propanoic acid, 2-bromo-, 2-phenylethyl ester	118.0	28.7	67.2	4.60	1
1114	21197	Propanoic acid, 2-bromo-, phenylmethyl ester	20.0	6.3	49.3	3.65	1
1115	18702	Propanoic acid, 2-bromo-, 3-phenylpropyl ester	67.0	30.3	78.0	2.91	1
1116	21206	Propanoic acid, 2-bromo-, (tetrahydro-2-furanyl)methyl ester	28.3	8.3	75.0	3.14	1
1117	19998	Propanoic acid, 3-bromo-, 2-bromoethyl ester	30.3	23.3	43.8	1.90	1
1118	19996	Propanoic acid, 3-bromo-, 2-chloroethyl ester	22.0	5.6	24.5	6.02	2
1119	22072	Propanoic acid, 3-bromo-, 2-chloro-1-methylethyl ester	39.3	26.6	47.1	1.52	1
1120	19993	Propanoic acid, 3-bromo-, cyclohexyl ester	45.0	19.5	27.5	2.36	1
1121	22002	Propanoic acid, 3-bromo-, 2-cyclohexylethyl ester	29.7	19.1	38.0	2.37	1
1122	22089	Propanoic acid, 3-bromo-, 1,3-dimethylbutyl ester	17.5	28.7	67.2	.61	0
1123	30431	Propanoic acid, 3-bromo-, ethyl ester	1.6	7.7	12.3	.22	0
1124	22070	Propanoic acid, 3-bromo-, 2-ethylhexyl ester	25.7	28.7	67.2	.99	0
1125	22001	Propanoic acid, 3-bromo-, 1-ethylpropyl ester	16.8	12.8	38.3	1.31	1
1126	19994	Propanoic acid, 3-bromo-, hexyl ester	57.5	41.0	80.8	2.30	1
1127	19999	Propanoic acid, 3-bromo-, 2-methoxyethyl ester	24.5	27.6	61.8	1.42	1
1128	19997	Propanoic acid, 3-bromo-, 1-methylethyl ester	14.3	28.3	63.6	.59	0
1129	36611	Propanoic acid, 3-bromo-2-methyl-, ethyl ester	9.3	13.0	16.0	.43	0
1130	22071	Propanoic acid, 3-bromo-, 2-phenoxyethyl ester	93.8	21.0	54.8	9.58	2
1131	22003	Propanoic acid, 3-bromo-, 2-phenylethyl ester	77.1	32.4	58.9	3.32	1
1132	22088	Propanoic acid, 3-bromo-, 3-phenylpropyl ester	210.3	14.1	54.0	15.68	2
1133	19995	Propanoic acid, 3-bromo-, propyl ester	10.5	28.8	65.6	.43	0
1134	22000	Propanoic acid, 3-bromo-, (tetrahydro-2-furanyl)methyl ester	25.6	8.1	24.5	3.14	1
1135	3258	Propanoic acid, 3-butoxy-, butyl ester	3.0	5.5	5.0	.63	0
1136	18759	Propanoic acid, 2-chloro-, 2-chloro-1-methylethyl ester	12.3	21.0	53.0	.58	0

Table 1.--Effectiveness of chemicals tested as attractants for the Caribbean fruit fly--Continued

Item	AI3 No. (AI3-)	Test chemical	Mean No. flies attracted by--			Ratio (test/EtOH)	Class
			Test chemical	EtOH	AI3-19816		
1137	18716	Propanoic acid, 2-chloro-, 2-cyclohexylethyl ester	30.8	29.1	32.1	1.00	1
1138	21929	Propanoic acid, 2-chloro-, 3- methoxybutyl ester	8.3	20.6	44.6	.45	0
1139	18741	Propanoic acid, 2-chloro-, 2-phenoxyethyl ester	71.7	15.4	29.5	7.98	2
1140	18541	Propanoic acid, 2-chloro-, 2-phenylethyl ester	4.3	6.6	43.0	.74	0
1141	18540	Propanoic acid, 2-chloro-, 3- phenylpropyl ester	280.0	34.6	154.0	5.62	2
1142	21192	Propanoic acid, 2-chloro-, (tetrahydro-2H-pyran-2-yl)methyl ester	55.0	13.6	73.3	4.49	1
1143	18769	Propanoic acid, 3-chloro-, 2-butyloctyl ester	99.6	33.0	43.3	3.00	1
1144	18767	Propanoic acid, 3-chloro-, 2-chloro- 1-methylethyl ester	14.3	11.5	46.8	1.24	1
1145	18763	Propanoic acid, 3-chloro-, cyclohexyl ester	18.8	10.7	17.1	3.96	1
1146	18795	Propanoic acid, 3-chloro-, 2-cyclohexylethyl ester	15.3	7.8	28.8	3.93	1
1147	18798	Propanoic acid, 3-chloro-, 2-[4-(1,1- dimethylethyl)phenoxy]ethyl ester	61.7	30.0	37.7	3.38	1
1148	18800	Propanoic acid, 3-chloro-, 2-ethylhexyl ester	20.0	9.8	25.3	2.42	1
1149	21930	Propanoic acid, 3-chloro-, 3- methoxybutyl ester	7.2	4.5	16.5	2.58	1
1150	18770	Propanoic acid, 3-chloro-, 1-methyl-1,3-propanediyl ester	42.5	14.6	21.3	2.73	1
1151	18765	Propanoic acid, 3-chloro-, 2-phenoxyethyl ester	164.4	26.7	35.1	5.56	2
1152	18701	Propanoic acid, 3-chloro-, 2-phenylethyl ester	33.6	8.3	161.3	3.92	1
1153	18700	Propanoic acid, 3-chloro-, 3- phenylpropyl ester	129.3	6.6	43.0	18.23	2
1154	21193	Propanoic acid, 3-chloro-, (tetrahydro-2H-pyran-2-yl)methyl ester	154.0	15.8	59.5	9.90	2
1155	34502	Propanoic acid, 2,2-dimethyl-, 2-phenylethyl ester	10.3	9.6	165.0	1.29	1
1156	14473	Propanoic acid, 3-ethoxy-, butyl ester	3.3	4.0	9.3	1.73	1
1157	19453	Propanoic acid, 3-ethoxy-, 2-chloroethyl ester	8.3	11.0	16.3	2.11	1
1158	19459	Propanoic acid, 3-ethoxy-, 2-chloro-1- methylethyl ester	1.3	4.0	9.3	.70	0
1159	14477	Propanoic acid, 3-ethoxy-, decyl ester	6.3	1.6	7.0	2.83	1
1160	30932	Propanoic acid, 3-ethoxy-, 2,2-dimethylpentyl ester	8.2	13.5	53.7	1.30	1
1161	21507	Propanoic acid, 3-ethoxy-, heptyl ester	9.6	3.0	13.3	3.42	1
1162	14474	Propanoic acid, 3-ethoxy-, pentyl ester	13.3	5.3	14.0	3.52	1
1163	19455	Propanoic acid, 3-ethoxy-, 2,2,2-trichloroethyl ester	103.6	13.1	54.8	13.19	2
1164	395	Propanoic acid, 2-hydroxy-, ethyl ester	14.6	12.6	22.3	1.10	1
1165	3241	Propanoic acid, 3-methoxy-, 3-chloropropyl ester	6.3	9.0	14.0	.74	0

Table 1.--Effectiveness of chemicals tested as attractants for the Caribbean fruit fly--Continued

Item	AI3 No. (AI3-)	Test chemical	Mean No. flies attracted by--			Ratio (test/EtOH)	Class
			Test chemical	EtOH	AI3-19816		
1166	3247	Propanoic acid, 3-methoxy-, 2-ethylbutyl ester	3.0	4.0	12.6	0.67	0
1167	3245	Propanoic acid, 3-methoxy-, pentyl ester	6.2	8.0	11.5	.88	0
1168	19790	Propanoic acid, 2-methyl-, 2-bromoethyl ester	22.3	14.0	43.6	2.44	1
1169	6329	Propanoic acid, 2-methyl-, 1,4-butanediyl ester	3.5	3.0	5.0	1.00	1
1170	21665	Propanoic acid, 2-methyl-, 2-chloro-4-(1,1-dimethylethyl)phenyl ester	17.0	21.6	19.3	.90	0
1171	19788	Propanoic acid, 2-methyl-, 2-chloroethyl ester	5.3	8.6	36.3	1.76	1
1172	30497	Propanoic acid, 2-methyl-, 1-(chloromethyl)-2-(2-propenyloxy)ethyl ester	5.0	7.0	11.6	1.17	1
1173	30367	Propanoic acid, 2-methyl-, 2-(2-chlorophenoxy)-1-methylethyl ester	16.0	7.0	11.6	2.32	1
1174	36525	Propanoic acid, 2-methyl-, 2,3-dihydro-1H-inden-(?)-yl ester	3.3	4.6	1.3	.86	0
1175	33677	Propanoic acid, 2-methyl-, 1,4-dimethyl-1,4-butanediyl ester	12.3	12.3	32.3	.76	0
1176	30510	Propanoic acid, 2-methyl-, 1,2-dimethyl-1,2-ethanediyl ester	3.6	5.0	6.3	.70	0
1177	33225	Propanoic acid, 2-methyl-, 3,7-dimethyl-6-octenyl ester	9.3	8.3	14.6	2.10	1
1178	6100	Propanoic acid, 2-methyl-, 1,2-ethanediyl ester	12.3	9.0	28.6	1.57	1
1179	32966	Propanoic acid, 2-methyl-, 2,4-hexadienyl ester	173.3	44.5	112.8	3.03	1
1180	33676	Propanoic acid, 2-methyl-, 1,6-hexanediyl ester	6.0	4.0	8.0	1.95	1
1181	36526	Propanoic acid, 2-methyl-, (4-methoxyphenyl)methyl ester	2.0	4.6	11.6	.86	0
1182	6321	Propanoic acid, 2-methyl-, 1-methyl-1,2-ethanediyl ester	8.6	8.3	29.0	1.02	1
1183	36081 -X	Propanoic acid, 2-methyl-, 1-methyl-1-(4-methyl-3-cyclohexen-1-yl)ethyl ester (mixed isomers)	2.6	4.0	9.3	1.15	1
1184	30509	Propanoic acid, 2-methyl-, 1-methyl-1,3-propanediyl ester	11.6	11.3	18.0	1.58	1
1185	37202	Propanoic acid, 2-methyl-, 3-methyl-5-oxo-1-cyclopenten-1-yl ester	7.6	18.3	22.0	.54	0
1186	36587	Propanoic acid, 2-methyl-, 2-methyl-4-oxo-4H-pyran-3-yl ester	4.6	1.6	2.0	2.66	1
1187	6017	Propanoic acid, 2-methyl-, pentyl ester	7.3	3.0	12.6	2.53	1
1188	18545	Propanoic acid, 2-methyl-, 2-phenylethyl ester	7.6	8.0	58.3	.88	0
1189	24262	Propanoic acid, 2-methyl-, 3-phenyl-2-propenyl ester	18.0	10.5	36.5	2.94	1
1190	21865	Propanoic acid, 2-methyl-, 1-phenylpropyl ester	56.3	9.6	410.0	2.62	1
1191	18536	Propanoic acid, 2-methyl-, 3-phenylpropyl ester	68.5	10.2	24.0	7.80	2
1192	6115	Propanoic acid, 2-methyl-, 1,3-propanediyl ester	5.6	3.6	8.6	3.45	1

Table 1.--Effectiveness of chemicals tested as attractants for the Caribbean fruit fly--Continued

Item	AI3 No. (AI3-)	Test chemical	Mean No. flies attracted by--			Ratio (test/EtOH)	Class
			Test chemical	EtOH	AI3-19816		
1193	30513	Propanoic acid, 2-methyl-, 2,3,4,6-tetrachlorophenyl ester	9.6	7.3	11.6	2.14	1
1194	5636	Propanoic acid, 2-oxo-, ethyl ester	8.0	6.0	7.3	1.68	1
1195	35964	Propanoic acid, 2-oxo-, 3-hexenyl ester, (Z)-	7.2	5.2	5.0	1.66	1
1196	21393	1-Propanol, 2,3-dibromo-, propanoate	42.3	19.3	78.6	5.66	2
1197	18533	1-Propanol, 3-phenyl-, acetate	58.0	8.1	24.4	10.51	2
1198	18697	1-Propanol, 3-phenyl-, benzoate	70.5	6.6	17.2	11.95	2
1199	18532	1-Propanol, 3-phenyl-, formate	268.3	34.6	154.0	4.60	1
1200	18535	1-Propanol, 3-phenyl-, propanoate	16.3	8.6	55.6	1.96	1
1201	30393	2-Propanol, 1-(2-chlorophenoxy)-, acetate	25.6	12.0	24.0	3.80	1
1202	30413	2-Propanol, 1-(2-chlorophenoxy)-, formate	35.3	12.8	16.6	3.34	1
1203	30394	2-Propanol, 1-(2-chlorophenoxy)-, propanoate	13.3	15.6	39.6	1.42	1
1204	30494	2-Propanol, 1-chloro-3-(2-propenyloxy)-, acetate	25.8	17.8	21.0	1.58	1
1205	30491	2-Propanol, 1-chloro-3-(2-propenyloxy)-, formate	10.8	14.6	19.6	.85	0
1206	30495	2-Propanol, 1-chloro-3-(2-propenyloxy)-, propanoate	17.6	6.0	18.6	3.20	1
1207	22362	2-Propanol, 1-methoxy-, benzoate	24.0	29.0	163.0	.82	0
1208	3719	1-Propanone, 1-(4-hydroxyphenyl)-	17.0	11.5	21.0	1.72	1
1209	4094	1-Propanone, 1-(4-methoxyphenyl)-	15.5	11.0	---	1.49	1
1210	4217	1-Propanone, 1-(4-methylphenyl)-	8.6	10.6	---	.80	0
1211	11204	1-Propanone, 2-methyl-1-phenyl-	28.6	10.6	13.3	1.14	1
1212	951	1-Propanone, 1-phenyl-	21.6	10.6	---	1.92	1
1213	30059	2-Propanone, 1-(1,3-benzodioxol-5-yl)-	15.0	10.4	---	1.50	1
1214	32180	2-Propanone, 1-(4-chlorophenoxy)-	122.0	9.1	17.8	18.89	2
1215	21374	2-Propanone, 1-(1-cyclohexen-1-yl)-	27.0	8.0	---	4.82	1
1216	24773	2-Propanone, 1-cyclohexyl-	3.0	17.0	---	.17	0
1217	3839	2-Propenoic acid, cyclohexyl ester	5.0	13.6	18.6	.61	0
1218	3833	2-Propenoic acid, 2-ethylhexyl ester	12.6	7.6	11.0	3.03	1
1219	3827	2-Propenoic acid, octyl ester	8.0	12.5	13.0	.66	0
1220	37166	2-Propenoic acid, 3-[4-(acetyloxy)-3- methoxyphenyl]-, 2-chloroethyl ester, (E)-	80.6	22.0	30.0	5.21	2
1221	23716	2-Propenoic acid, 3-[4-(acetyloxy)-3- methylphenyl]-, methyl ester	19.6	22.0	30.0	1.15	1
1222	36556	2-Propenoic acid, 3-[4- (acetyloxy)phenyl]-, methyl ester, (E)-	26.3	22.0	30.0	1.88	1
1223	36064	2-Propenoic acid, 3-(3,4- dihydroxyphenyl)-, methyl ester, (E)-	6.3	6.6	12.3	1.05	1
1224	36429	2-Propenoic acid, 3-[4-(formyloxy)-3- methoxyphenyl]-, methyl ester, (E)-	28.5	17.2	25.2	3.72	1
1225	4246	2-Propenoic acid, 3-(2-furanyl)-	6.6	7.0	15.0	.82	0
1226	36594	2-Propenoic acid, 3-(2-furanyl)-, 2-methylpropyl ester	3.6	1.0	3.0	2.66	1
1227	36105	2-Propenoic acid, 3-(3-hydroxy-4- methoxyphenyl)-, methyl ester, (E)-	35.0	22.0	30.0	2.29	1
1228	36063	2-Propenoic acid, 3-(4-methoxyphenyl)-, methyl ester, (E)-	12.0	21.6	31.6	.85	0
1229	25419	2-Propenoic acid, 2-methyl-, hexyl ester	9.0	12.6	13.0	1.36	1

Table 1.--Effectiveness of chemicals tested as attractants for the Caribbean fruit fly--Continued

Item	AI3 No. (AI3-)	Test chemical	Mean No. flies attracted by--			Ratio (test/EtOH)	Class
			Test chemical	EtOH	AI3-19816		
1230	14514	2-Propenoic acid, 2-methyl-, pentyl ester	2.0	2.6	6.6	1.33	1
1231	2424	2-Propenoic acid, 3-phenyl-, cyclohexyl ester	2.0	3.6	7.0	.50	0
1232	2445	2-Propenoic acid, 3-phenyl-, 3-phenyl-2-propenyl ester	47.0	14.6	24.3	4.95	1
1233	23960	2-Propenoic acid, 3-phenyl-, 3-phenylpropyl ester	378.6	33.6	154.0	5.99	2
1234	2313	2-Propenoic acid, 3-phenyl-, 2-propenyl ester	10.2	7.7	15.5	1.10	1
1235	36427	2-Propenoic acid, 3-(2,4,5-trimethoxyphenyl)-, methyl ester, (E)-	9.0	18.6	27.0	.72	0
1236	36425	2-Propenoic acid, 3-(3,4,5-trimethoxyphenyl)-, methyl ester, (E)-	26.0	21.6	31.6	1.47	1
1237	28603	2-Propen-1-ol, 2-chloro-	266.3	211.3	579.3	2.44	1
1238	36149	2-Propen-1-ol, 3-(4-hydroxy-3-methoxyphenyl)-	4.6	6.6	12.3	.64	0
1239	2677	2-Propen-1-ol, 2-methyl-	18.3	25.0	74.3	1.02	1
1240	949	2-Propen-1-ol, 3-phenyl-	131.2	21.2	79.6	5.36	2
1241	36053	2-Propen-1-ol, 3-phenyl-, benzoate	15.7	10.5	36.5	2.76	1
1242	2455	2-Propen-1-ol, 3-phenyl-, formate	16.7	9.2	41.0	1.92	1
1243	2446	2-Propen-1-ol, 3-phenyl-, propanoate	22.0	7.3	130.6	2.89	1
1244	25492	2-Propen-1-one, 1,3-bis(4-methoxyphenyl)-	2.0	11.5	21.0	.09	0
1245	17321	2-Propen-1-one, 3-(3,4-dimethoxyphenyl)-1-phenyl-	2.5	11.5	21.0	.59	0
1246	37204	4H-Pyran-3-ol, 2-methyl-4-oxo-, propanoate	6.0	2.6	2.3	2.27	1
1247	36027	2H-Pyran-2-one, 6-butyltetrahydro-	15.3	9.6	11.0	1.68	1
1248	36030	2H-Pyran-2-one, 6-heptyltetrahydro-	5.0	4.3	7.3	1.19	1
1249	36029	2H-Pyran-2-one, 6-hexyltetrahydro-	16.6	12.6	31.6	1.16	1
1250	36028	2H-Pyran-2-one, tetrahydro-6-pentyl-	3.6	1.0	2.6	2.50	1
1251	21052	4H-Pyran-4-one, 2-{(acetyloxy)methyl}-5-hydroxy-	170.1	10.1	47.8	16.25	2
1252	36550	Pyrazine, 2-methyl-	4.3	4.6	5.3	.91	0
1253	1240	Pyridine	2.0	2.6	1.6	1.05	1
1254	37035	Pyridine, 1-(bicyclo[2.2.1]hept-5-en-2-ylcarbonyl)-1,2,3,6-tetrahydro-	7.0	3.3	3.0	4.16	1
1255	36657	Pyridine, 4-(1,1-dimethylethyl)-	14.0	12.0	14.0	1.51	1
1256	24117	Pyrrolidine	2.0	3.0	2.6	.57	0
1257	37024	Pyrrolidine, 1-(bicyclo[2.2.1]hept-5-en-2-ylcarbonyl)-	6.0	9.3	11.6	.99	0
1258	34289	Pyrrolidine, 1-(butylsulfonyl)-	16.0	5.3	14.0	2.39	1
1259	35764	Pyrrolidine, 1-(3-cyclohexen-1-ylcarbonyl)-	.0	1.0	---	.00	0
1260	36369	Pyrrolidine, 1-(2-hydroxy-1-oxopropyl)-	6.0	4.3	5.3	1.51	1
1261	36169	Pyrrolidine, 1-(3-methyl-1-oxo-2-butenyl)-	8.2	3.5	11.2	3.89	1
1262	35467	Pyrrolidine, 1-(1-oxobutyl)-	3.6	1.3	13.3	2.11	1
1263	32857	Pyrrolidine, 1-(1-oxododecyl)-	3.6	6.3	14.0	.61	0
1264	33516	Pyrrolidine, 1-(1-oxoheptyl)-	2.0	4.6	3.0	.18	0
1265	32867	Pyrrolidine, 1-(1-oxohexadecyl)-	22.0	7.0	15.0	3.14	1
1266	32852	Pyrrolidine, 1-(1-oxohexyl)-	2.6	1.6	15.6	1.77	1
1267	32856	Pyrrolidine, 1-(1-oxononyl)-	12.3	9.3	18.0	1.58	1

Table 1.--Effectiveness of chemicals tested as attractants for the Caribbean fruit fly--Continued

Item	AI3 No. (AI3-)	Test chemical	Mean No. flies attracted by--			Ratio (test/EtOH)	Class
			Test chemical	EtOH	AI3-19816		
1268	37389	Pyrrolidine, 1-(1-oxooctadecyl)-	5.3	3.0	3.0	1.80	1
1269	32853	Pyrrolidine, 1-(1-oxooctyl)-	10.0	8.6	16.0	1.86	1
1270	35461	Pyrrolidine, 1-(1-oxopentyl)-	8.6	15.0	22.6	1.01	1
1271	36632	Pyrrolidine, 1-(1-oxopropyl)-	55.3	15.0	24.0	3.62	1
1272	32866	Pyrrolidine, 1-(1-oxotetradecyl)-	3.3	5.6	13.3	.33	0
1273	33518	Pyrrolidine, 1-(1-oxoundecyl)-	12.0	7.0	19.5	1.42	1
1274	62298	1-Pyrrolidineethanol	37.0	202.0	534.6	.20	0
1275	34290	Quinoline, 1-(butylsulfonyl)-1,2,3,4- tetrahydro-	23.0	.0	12.0	23.00	2
1276	35466	Tetradecanamide, N,N-dibutyl-	1.0	1.6	4.3	.77	0
1277	35465	Tetradecanamide, N,N-diethyl-	6.0	2.6	11.3	1.97	1
1278	37469	Tetradecanamide, N,N-dimethyl-	3.6	8.6	12.3	.38	0
1279	26662 -X	Tetradecanamide, N,N-dimethyl- crude	8.0	.5	7.0	8.00	2
1280	35512	Tetradecanamide, N,N-dipropyl-	11.3	3.6	5.3	3.03	1
1281	1024	Tetradecanoic acid, ethyl ester	8.6	10.6	21.0	1.01	1
1282	943	1-Tetradecanol	3.3	1.6	6.3	2.08	1
1283	35271	2-Tetradecanol	2.3	1.3	2.0	1.58	1
1284	35272	3-Tetradecanol	5.0	2.3	4.6	1.83	1
1285	35273	4-Tetradecanol	2.0	5.3	4.0	1.69	1
1286	35274	5-Tetradecanol	4.0	1.6	6.3	1.75	1
1287	35275	6-Tetradecanol	14.3	15.3	16.0	1.50	1
1288	35276	7-Tetradecanol	4.6	6.0	10.6	.77	0
1289	21059	Thiophene, 2,5-dihydro-2,4-dimethyl-, 1,1-dioxide	15.8	5.6	9.0	4.02	1
1290	35514	Tridecanamide, N,N-dibutyl-	3.0	5.0	4.3	.73	0
1291	35238	Tridecanamide, N,N-diethyl-	4.0	1.3	8.6	3.16	1
1292	37461	Tridecanamide, N,N-dimethyl-	2.0	6.3	9.6	.34	0
1293	35513	Tridecanamide, N,N-dipropyl-	2.5	2.0	4.0	.83	0
1294	36610	Tridecanoic acid, ethyl ester	4.3	1.6	2.3	2.83	1
1295	35264	1-Tridecanol	2.0	1.3	3.6	1.25	1
1296	35265	2-Tridecanol	4.6	3.3	5.0	1.00	1
1297	35266	3-Tridecanol	1.5	3.0	7.0	.30	0
1298	35267	4-Tridecanol	12.0	9.6	15.0	1.42	1
1299	35269	6-Tridecanol	11.6	10.6	10.3	1.23	1
1300	35270	7-Tridecanol	2.3	6.3	2.0	1.22	1
1301	36050	2-Tridecen-1-ol, (E)-	4.3	4.6	4.0	1.76	1
1302	36051	2-Tridecen-1-ol, acetate, (E)-	3.0	5.6	11.6	.67	0
1303	36041	2,4-Undecadien-1-ol, (E,E)-	8.6	5.6	11.6	1.55	1
1304	35518	Undecanamide, N,N-dibutyl-	3.2	2.8	13.0	.76	0
1305	35236	Undecanamide, N,N-diethyl-	13.6	6.5	18.6	1.66	1
1306	37488	Undecanamide, N,N-dimethyl-	10.6	8.3	8.0	3.03	1
1307	35235	Undecanamide, N,N-dipropyl-	4.0	10.3	16.6	.54	0
1308	36023	Undecane, 1,1-dimethoxy-	18.6	10.6	27.3	.90	0
1309	23975	Undecane, 1-iodo-	5.5	7.0	27.2	.76	0
1310	28302	Undecanenitrile	30.3	45.6	139.3	.82	0
1311	4250	Undecanoic acid, ethyl ester	2.6	2.3	1.6	1.05	1
1312	35680	2-Undecanol	7.6	6.0	11.3	1.36	1
1313	35681	3-Undecanol	.6	1.3	1.6	.66	0
1314	35682	4-Undecanol	3.6	4.0	4.0	.80	0
1315	35683	5-Undecanol	1.3	2.6	7.0	.62	0
1316	35684	6-Undecanol	2.0	5.0	8.0	.30	0
1317	22131	3,5,9-Undecatrien-2-one, 6,10-dimethyl-	25.7	7.7	306.5	3.92	1
1318	664	10-Undecenoic acid, ethyl ester	2.0	2.3	4.3	.83	0
1319	22365	10-Undecenoic acid, 2-propenyl ester	4.6	6.0	11.6	.76	0

Table 1.--Effectiveness of chemicals tested as attractants for the Caribbean fruit fly--Continued

Item	AI3 No. (AI3-)	Test chemical	Mean No. flies attracted by--			Ratio (test/EtOH)	Class
			Test chemical	EtOH	AI3-19816		
1320	36047	2-Undecen-1-ol, (E)-	11.0	5.6	11.6	1.69	1

replications. No chemical was sex specific. No attempt was made to correlate attractancy to the chemical structure of the compounds. Such studies are underway by the second author and are being used as the basis for selecting and synthesizing additional compounds for evaluation. Preliminary tests have been initiated to determine if any of the class 2 compounds are effective under field conditions.

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INDEX OF AI3 NUMBERS

The AI3 number is cross-referenced to the item number in table 1.

AI3 No.	Item	AI3 No.	Item	AI3 No.	Item	AI3 No.	Item
33	699	1975	297	3833	1218	6023	978
53	115	2039	940	3839	1217	6024	974
275	591	2062	406	3878	8	6026	977
342	799	2067	199	3883	544	6035	822
380	122	2068	222	3884	317	6041	973
395	1164	2115	1079	3886	696	6043	975
418	433	2151	48	3990	176	6044	813
419	693	2182	5	4092	566	6047	427
431	564	2184	4	4094	1209	6052	801
514	223	2185	672	4101	545	6059	323
518	1009	2225	697	4217	1210	6066	797
522	592	2313	1234	4237	186	6100	1178
578	949	2331	191	4244	897	6102	818
644	428	2424	1231	4246	1225	6104	823
648	261	2445	1232	4248	179	6113	177
654	130	2446	1243	4250	1311	6115	1192
656	1080	2453	190	4536	168	6118	343
659	1091	2455	1242	4803	516	6129	811
664	1318	2461	358	4860	626	6147	291
666	300	2463	165	4923	68	6152	359
668	800	2480	302	4978	257	6153	354
671	798	2503	562	4980	85	6154	982
678	431	2510	109	4981 -X	570	6263	980
682	301	2677	1239	5004	231	6297	296
737	930	2719	149	5026	664	6313	374
738	910	2828	3	5503	710	6316	803
744	146	2833	1071	5513	298	6318	334
752	705	2837	1073	5515	299	6319	805
896	966	2936	178	5522	157	6321	1182
943	1282	2945	998	5531	158	6322	308
944	482	2949	152	5613	430	6323	989
949	1240	2953	396	5627	1085	6326	310
951	1212	2954	357	5636	1194	6329	1169
1019	673	3241	1165	5672	151	6330	318
1022	242	3245	1167	5684	107	6331	782
1024	1281	3247	1166	5703	225	6344	391
1172	547	3258	1135	5777	477	6346	996
1230	755	3295 -X	906	5833	194	6356	1084
1234	728	3426	303	5903	206	6377	340
1240	1253	3469	238	5928	280	6380	804
1353	198	3470	243	5998	919	6384	1088
1775	276	3719	1208	6007	976	6401	1000
1859	360	3762	967	6011	691	6407	981
1967	1076	3806	236	6013	690	7025	143
1971	134	3827	1219	6017	1187	7041	777

AI3 No.	Item	AI3 No.	Item	AI3 No.	Item	AI3 No.	Item
7044	946	14042	499	18542	147	19663	515
7046	776	14117	505	18544	148	19665	520
7047	772	14189	555	18545	1188	19698	807
7065	770	14237	507	18690	37	19788	1171
7075	945	14286	498	18691	82	19790	1168
7188	961	14379	286	18692	502	19816	519
7235	1082	14473	1156	18693	556	19819	174
7236	1077	14474	1162	18694	508	19948	634
7345	60	14477	1159	18695	368	19949	635
7347	960	14514	1230	18696	546	19950	636
7377	957	15123	424	18697	1198	19993	1120
7384	958	15125	185	18698	369	19994	1126
7621	121	15185	612	18699	825	19995	1133
7789	170	15191	567	18700	1153	19996	1118
7820	1087	15234	1066	18701	1152	19997	1128
7823	275	15236	7	18702	1115	19998	1117
8006	778	15238	1067	18703	1113	19999	1127
8009	683	15276	6	18704	306	20000	230
8030	1018	15352	692	18716	1137	20018	1044
8223	695	15415	724	18741	1139	20020	288
8726	319	15489	426	18759	1136	20038	140
9060	1045	16504	295	18763	1145	20083	232
9180	703	16642	862	18765	1151	20089	234
10041	1083	17155	262	18767	1144	20090	235
10505	707	17321	1245	18769	1143	20105	138
10519	684	17322	405	18770	1150	20106	136
11016	722	17436	144	18795	1146	20221	577
11065	1019	17878	702	18798	1147	20279	420
11124	677	18076	164	18800	1148	20339	228
11158	305	18162	806	18808	716	20342	537
11163	708	18285	875	18809	712	20347	256
11204	1211	18405	61	18810	713	20395	229
11231	187	18407	62	18812	715	20463	226
11244	688	18411	54	18917	38	20464	227
11263	752	18414	53	18918	28	20489	181
11266	689	18486	290	18919	34	20492	180
11534	714	18493	293	18921	27	20495	172
11545	633	18522	55	18942	253	20519	166
11591	189	18524	45	18943	254	20520	322
11592	378	18525	49	18969	412	20526	812
11699	313	18532	1199	19339	131	20536	356
11732	786	18533	1197	19422	1046	20558	169
11737	1068	18535	1200	19453	1157	20570	184
12191	741	18536	1191	19455	1163	20604	154
13005	17	18537	39	19459	1158	20608	167
13109	956	18538	83	19595	258	20630	150
13150	84	18539	67	19660	510	20640	145
13180	942	18540	1141	19661	518	20682	252
13193	553	18541	1140	19662	517	20699	255

AI3 No.	Item	AI3 No.	Item	AI3 No.	Item	AI3 No.	Item
20815	123	21299	1100	21926	32	23405	1040
20836	623	21305	1111	21927	1105	23412	927
20909	233	21306	1102	21929	1138	23451	118
20958	77	21307	1095	21930	1149	23586	709
20959	31	21355	834	21936	849	23590	721
20960	11	21356	828	21938	480	23716	1221
20961	10	21373	832	21970	367	23811	557
20997	220	21374	1215	21971	830	23816	558
21052	1251	21376	829	21977	476	23960	1233
21059	1289	21377	831	21978	413	23975	1309
21132	24	21389	827	21979	423	24117	1256
21133	26	21390	835	21985	263	24140	119
21134	25	21391	826	21995	864	24200	330
21135	15	21392	833	21997	1014	24204	352
21139	29	21393	1196	22000	1134	24239	941
21142	14	21394	19	22001	1125	24262	1189
21143	33	21395	1099	22002	1121	24271	401
21144	13	21396	44	22003	1131	24272	397
21145	20	21397	816	22070	1124	24367	105
21156	41	21398	326	22071	1130	24378 -X	568
21157	12	21399	79	22072	1119	24483	279
21158	16	21400	129	22073	824	24559	1047
21189	64	21401	69	22074	309	24589	644
21192	1142	21402	73	22081	814	24594	284
21193	1154	21407	70	22088	1132	24625	846
21197	1114	21410	72	22089	1122	24692	613
21199	1097	21488	581	22131	1317	24756	474
21206	1116	21507	1161	22214	793	24761	1020
21207	1104	21528	50	22215	795	24765	847
21208	1106	21543	436	22218	125	24767	377
21209	723	21557	620	22223	124	24769	475
21236	1098	21585	22	22225	139	24773	1216
21237	1103	21665	1170	22227	128	24774	484
21238	1093	21687	538	22229	365	24779	938
21239	1092	21693	578	22345	80	24781	175
21240	1112	21707	589	22348	81	24792	202
21241	1094	21708	586	22361	132	25036	1070
21248	1096	21709	588	22362	1207	25071	732
21250	1036	21730	587	22365	1319	25072	762
21252	479	21746	601	22399	56	25082	422
21260	1108	21756	602	22729	513	25084	468
21272	419	21848	582	22885	659	25091	855
21273	421	21865	1190	22886	660	25093	483
21277	1101	21915	1022	23122	466	25102 -X	161
21278	1109	21916	204	23178	845	25136	1030
21283	404	21917	1037	23181	842	25261	207
21284	403	21919	863	23182	844	25389	285
21287	1110	21920	294	23183	838	25404	407
21294	1107	21925	52	23184	839	25419	1229

AI3 No.	Item	AI3 No.	Item	AI3 No.	Item	AI3 No.	Item
25492	1244	30201	35	30603	259	31119	268
26011	711	30204	23	30606	395	31142	785
26041	1015	30211	40	30608	399	31193	265
26044	948	30220	372	30652	661	31223	264
26271	417	30221	371	30654	645	31226	269
26371	939	30225	375	30659	646	31272	648
26468	497	30226	376	30662	584	31283	655
26661 -X	674	30249	788	30664	590	31304	621
26662 -X	1279	30321	126	30667	585	31321	521
26663 -X	908	30325	127	30690	647	31322	522
28141	203	30328	63	30699	51	31324	523
28171	495	30338	116	30722	876	31331	536
28302	1310	30339	1075	30732	43	31355	249
28356	604	30357	373	30739	30	31367	221
28396	810	30367	1173	30740	746	31387	46
28424	465	30388	224	30741	745	31391	651
28581	1086	30393	1201	30746	214	31392	247
28603	1237	30394	1203	30748	748	31418	658
28604	1039	30395	18	30753	622	31424	398
28606	1028	30413	1202	30754	1074	31425	385
28607	1033	30417	78	30900	65	31451	700
28610	593	30419	321	30901	42	31452	701
28613	859	30426	75	30902	251	31453	338
28615	1029	30427	76	30906	325	31458	162
28616	1031	30431	1123	30914	21	31462	488
28617	1034	30432	74	30920	248	31463	491
28618	1035	30463	287	30929	848	31464	489
28619	603	30487	802	30930	928	31465	492
28621	756	30490	1089	30931	250	31466	487
28622	757	30491	1205	30932	1160	31467	490
28623	759	30492	979	30974	619	31477	383
28624	860	30494	1204	30998	618	31490	486
28625	861	30495	1206	30999	208	31529	654
28628	937	30496	320	31001	210	31533	657
28630	565	30497	1172	31010	924	31560	528
28631	754	30509	1184	31017	923	31561	534
28634	159	30510	1176	31033	219	31564	530
30026	990	30513	1193	31035	209	31567	533
30027	1005	30514	988	31036	212	31569	535
30059	1213	30527	932	31037	213	31628	524
30074	1006	30532	1027	31038	218	31793	652
30076	1007	30541	761	31053	9	31796	649
30135	267	30580	999	31056	915	31800	525
30136	266	30587	991	31066	917	31802	527
30159	271	30589	57	31072	914	31803	526
30192	272	30590	36	31102	142	31804	532
30193	273	30591	58	31104	141	31805	531
30194	274	30598	393	31112	666	31806	529
30197	47	30602	260	31118	819	31826	668

AI3 No.	Item	AI3 No.	Item	AI3 No.	Item	AI3 No.	Item
31832	415	32838	100	33389	775	33679	997
31833	411	32839	97	33390	774	33680	994
31835	353	32840	93	33392	773	33681	388
31837	416	32841	103	33454	1024	33682	400
31840	409	32842	98	33455	569	33683	392
31841	408	32848	1057	33456	1025	33684	386
31843	156	32849	96	33510	1055	33685	384
31844	394	32850	1056	33511	1054	33686	455
31861	1002	32851	95	33512	1065	33687	459
31864	1003	32852	1266	33513	94	33688	454
31866	1004	32853	1269	33514	92	33690	453
31892	665	32856	1267	33515	104	33691	458
31895	410	32857	1263	33516	1264	33692	457
31897	59	32866	1272	33518	1273	33693	456
31898	418	32867	1265	33521	541	33694	434
31900	197	32913	451	33526	542	33792	439
31913	1013	32915	461	33532	514	33793	449
31914	1011	32916	460	33544	575	33794	448
31915	1012	32960	339	33547	504	33795	450
31989	414	32961	790	33548	501	33797	447
32001	676	32962	789	33549	500	33798	444
32020	201	32966	1179	33550	554	33800	443
32079	200	33186	333	33551	506	33801	445
32116	205	33187	355	33552	462	33802	437
32118	1017	33188	337	33555	452	33803	446
32137	71	33190	348	33644	837	33812	435
32141	572	33192	332	33645	841	33813	1081
32180	1214	33193	349	33653	840	33814	1078
32186	66	33194	331	33654	843	33851	962
32225	425	33195	345	33656	311	33856	951
32313	473	33196	346	33657	984	33881	964
32345	472	33200	335	33658	743	33934	952
32388	1021	33201	366	33659	921	34135	188
32399	965	33202	342	33661	983	34276	900
32414	987	33203	364	33662	742	34289	1258
32415	986	33204	336	33663	920	34290	1275
32432	653	33205	328	33664	307	34292	315
32501	694	33206	363	33665	312	34293	316
32639	304	33207	344	33666	985	34294	314
32655	669	33208	362	33667	808	34297	731
32657	670	33225	1177	33668	744	34298	730
32658	650	33235	1090	33669	922	34299	1023
32707	656	33241	891	33670	347	34310	216
32716	429	33283	598	33671	351	34311	217
32717	432	33304	379	33672	329	34312	215
32826	1061	33308	380	33674	327	34324	211
32827	1058	33349	381	33676	1180	34392	857
32828	1064	33378	850	33677	1175	34393	853
32829	1059	33388	771	33678	995	34394	934

AI3 No.	Item	AI3 No.	Item	AI3 No.	Item	AI3 No.	Item
34397	641	35512	1280	36002	599	36056	539
34502	1155	35513	1293	36003	600	36057	540
34503	382	35514	1290	36004	901	36058	614
34565	1008	35518	1304	36005	246	36059	615
34697	629	35519	779	36006	361	36060	560
34698	885	35520	781	36007	925	36063	1228
34792	852	35680	1312	36008	720	36064	1223
34794	856	35681	1313	36009	749	36071	470
35231	888	35682	1314	36010	893	36072	471
35232	884	35683	1315	36011	877	36073	467
35233	631	35684	1316	36012	747	36074	481
35234	628	35701	733	36013	892	36075	609
35235	1307	35702	912	36014	817	36076	608
35236	1305	35703	882	36015	387	36077	607
35237	675	35704	627	36016	719	36079	606
35238	1291	35705	289	36017	959	36081 -X	1183
35259	678	35706	968	36018	718	36083	196
35260	679	35707	734	36019	796	36084	324
35261	680	35708	913	36020	740	36085	579
35262	681	35709	883	36021	918	36086	580
35263	682	35710	972	36022	632	36087	992
35264	1295	35711	738	36023	1308	36088	993
35265	1296	35712	916	36025	909	36089	815
35266	1297	35764	1259	36026	727	36090	573
35267	1298	35765	1050	36027	1247	36091	574
35269	1299	35766	88	36028	1250	36105	1227
35270	1300	35767	571	36029	1249	36120	277
35271	1283	35795	887	36030	1248	36123	469
35272	1284	35796	630	36031	611	36124	889
35273	1285	35958	858	36032	890	36125	117
35274	1286	35959	821	36033	441	36126	1
35275	1287	35964	1195	36036	880	36127	2
35276	1288	35965	442	36038	671	36128	1038
35279	783	35966	390	36039	879	36129	725
35281	784	35967	341	36040	625	36130	240
35458	792	35968	820	36041	1303	36131	239
35459	736	35969	854	36042	758	36132	245
35460	735	35970	463	36043	936	36149	1238
35461	1270	35987	933	36044	899	36156	1051
35462	1062	35989	809	36045	638	36157	89
35463	101	35990	503	36046	639	36169	1261
35464	970	35991	509	36047	1320	36170	1052
35465	1277	35992	543	36048	685	36171	90
35466	1276	35993	576	36049	686	36181	760
35467	1262	35994	616	36050	1301	36182	1032
35468	1053	35995	583	36051	1302	36183	911
35469	91	35996	493	36053	1241	36200	595
35509	739	35997	494	36054	511	36201	440
35511	969	36001	617	36055	512	36242	791

AI3 No.	Item	AI3 No.	Item	AI3 No.	Item	AI3 No.	Item
36262	389	36547	133	36713	292	37261	767
36271	160	36548	935	36714	706	37262	765
36272	278	36549	637	36784	237	37263	729
36369	1260	36550	1252	37024	1257	37264	866
36385	193	36552	605	37025	1048	37265	865
36425	1236	36553	898	37026	86	37266	763
36427	1235	36555	135	37028	1049	37267	764
36428	192	36556	1222	37030	282	37268	753
36429	1224	36587	1186	37031	283	37269	902
36430	153	36588	350	37032	281	37270	903
36431	155	36589	137	37035	1254	37271	943
36432	1069	36590	851	37166	1220	37272	643
36433	559	36591	717	37170	624	37389	1268
36459	173	36592	874	37199	106	37390	1060
36460	698	36593	872	37200	1026	37391	99
36461	704	36594	1226	37202	1185	37449	905
36485	687	36595	1010	37203	667	37450	907
36498	113	36598	610	37204	1246	37451	904
36499	112	36599	873	37205 -X	881	37461	1292
36500	114	36600	244	37207	596	37469	1278
36501	110	36601	370	37208	950	37477	780
36502	111	36603	836	37209	597	37486	737
36503	108	36604	751	37210	894	37487	886
36509	548	36605	971	37211	895	37488	1306
36510	183	36607	794	37212	896	37648	750
36511	549	36609	195	37213	926	37649	1001
36512	551	36610	1294	37214	929	38094	478
36513	182	36611	1129	37215	947	50540	963
36514	163	36614	1072	37216	642	52372	438
36515	496	36632	1271	37217	768	61848	561
36516	550	36633	1063	37218	769	62298	1274
36517	171	36634	102	37252	485	70209	87
36519	871	36655	726	37253	1043	70230	955
36520	953	36657	1255	37254	1041	70231	954
36521	870	36703	663	37255	1016	70501	241
36522	594	36704 -X	878	37256	1042	80480	464
36523	563	36705	270	37257	867	82521	944
36524	402	36707	120	37258	868	82523	787
36525	1174	36708	931	37259	869	82628	552
36526	1181	36711	662	37260	766	82647	640

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